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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/487,526	06/07/1995	JOHN C. HARVEY	5634.355	7792

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EXAMINER

HARVEY, DAVID E

ART UNIT PAPER NUMBER

2614

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/487,526

Applicant(s)

Harvey et al.

Examiner

David E. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 6, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.
- ### Disposition of Claims
- 4) ☒ Claim(s) 2-18, 20-30, 33-49, and 51-60 is/are pending in the application
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-18, 20-30, 33-49, and 51-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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SECTION I: A MOST SIGNIFICANT ISSUE (CONTINUED)

(The pending amended claims are (at best) only entitled to the 9/11/87 filing date of the instant 1987 CIP specification. The following discussion has been provided to rebut applicant's arguments to the contrary submitted in the supplemental response filed 5/06/2002):

A) Given the way in which applicant elected to draft and file his instant 1987 CIP specification, it is impossible for one to determine with any degree of certainty as to what portion or portions, or indeed if any portion, of the subject matter from the 44 pages of applicant's past 1981 Parent specification was *actually* carried forward into the 557 pages of the instant 1987 CIP specification. The instant 1987 CIP specification unquestionably failed to incorporate the "1981 subject matter" of the past 1981 Parent specification via an "Incorporation by Reference." Likewise, the instant 1987 CIP specification unquestionably failed to incorporate the "1981 subject matter" of the past 1981 Parent specification by literally copying the past 1981 specification into the instant 1987 specification. In fact, based testimony made before the ITC, no conscious effort to carry the "1981 subject matter" forward into the instant 1987 CIP specification ever appears to have been made; i.e. being that applicant's counsel appears to have testified that he had to go back, e.g. in hindsight, to review the instant 1987 CIP disclosure to try to determine for himself whether the 1981 subject matter had been carried forward into the instant 1987 CIP specification. After completing this review, it was the counsel's stated *belief* that the 1981 subject matter of the 1981 parent somehow found its way into the instant 1987 CIP specification. However, applicant's counsel admitted that if the 1981 subject matter had indeed been carried forward, then its wording had been changed and this re-worded subject matter had been scattered throughout more than 500 plus pages of subsequently added new 1987 CIP text/teachings/"subject matter".

"To the extent -- and I'm unaware of any significant differences between the '490 patent [*the 44 pages of applicant's past 1981 Parent specification*] and the '277 patent [*the 557 pages of applicant's instant 1987 CIP specification*]. I haven't seen one, and I don't remember it. Certainly, I made an effort early on to determine whether or not the disclosures of the '490 patent made their way into the '277 and although they're spread around and sometimes stated a little bit differently, for all relevant purposes of this hearing, the '490 patent is expanded by the '277. Its certainly not inconsistent."

[Applicant counsel testimony before the ITC (1997 ITC LEXIS 307, *252)]

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“There is at least one significant difference in the specifications of the ‘490 [*the 44 pages of the past 1981 Parent specification*] and ‘277 [*the 557 pages of the present 1987 CIP specification*] patents, viz. the fact that the ‘277 specification is more than ten times the length of the ‘490 specification. More over, assuming no inconsistencies between the two specifications, it is indisputable that the ‘277 specification contains a significant amount of material that was added to the disclosure of the ‘490 specification in 1987 (i.e. over 500 pages of text).”

[Administrative Law Judge Luckern's response to the applicant counsel testimony (1997 ITC LEXIS 307, *252)]

Administrative Law Judge Luckern also noted that applicant's counsel admitted during closing arguments that:

“the disclosure in the 24 columns of the ‘490 patent [*the 44 pages of the past 1981 parent specification*], if indeed it is at all carried forward, is interspersed among some 328 columns of the ‘277 patent [*the 557 pages of the instant 1987 CIP specification*]”. (emphasis added)

1997 ITC LEXIS 307, *252

After reading and comparing the 1987 and the 1981 specifications for himself, the current examiner believes that it is simply impossible for one to determine with any degree of certainty as to what portion or portions, or indeed if any portion, of the past 1981 Parent specification's 1981 subject matter was actually carried forward into the instant 1987 CIP specification. For this reason alone, the current examiner does not believe that applicant's currently pending amended claims, e.g. those which must necessarily derive their required section 112-1 support from the instant 1987 CIP specification, are entitled to the earlier filing date of the past 1981 Parent specification [i.e. until such time that applicant is able to show with a relative degree of certainty that the limitations of each pending amended claim, e.g. for which section 120 priority is alleged, is supported “solely” by 1981 subject matter that has been carried forward into the specification of the instant 1987 CIP specification (a daunting/impossible task given the state of affairs that has been created by applicant's own actions)].

“However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications” (emphasis added)

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

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“Any claim in a continuation-in-part application that is directed *solely* to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.” (emphasis added)

Kirschner, 305 F.2d 897 (C.C.PA1962)

In an attempt to free himself of this daunting/impossible task, applicant adopts the erroneous position that his pending amended claims, all of which hail from the instant 1987 CIP specification, are entitled to the 1981 filing date of the past 1981 Parent specification even if the 1987 subject matter that is currently being recited does not represent “common subject matter” with respect to the 1981 subject matter of the past 1981 Parent specification. According to applicant’s way of thinking, the only thing that applicant needs to do in order to obtain the earlier 1981 filing date for his pending amended claims is to show that each of his pending amended claims can be given different 1987 and 1981 claim interpretations which allows each claim to be supported, in parallel, by “different subject matter” from the two specification.

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.”

(emphasis added)

[Page 141 of applicant’s response filed on 1/28/2002 in application S.N. 08/470,571]

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“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’”

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant’s position seems to be wrong.

“However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications” (emphasis added)

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]]

“Any claim in a continuation-in-part application that is directed *solely* to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.” (emphasis added)

Kirschner, 305 F.2d 897 (C.C.PA1962)

B) Given the above, it is the examiner position that the “1987 inventions” that are currently described in the instant 1987 CIP specification and the “1981 inventions” that were previously described in the past 1981 Parent specification do not represent “common subject matter” are, for all intents and purposes, different inventions. It is therefor the examiner’s position that the currently pending claims, which necessarily derive their required section 112-1 support from the “1987 inventions”, are not entitled to the earlier

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1981 filing date of the *different* “1981 inventions”; i.e. being that the subject matter of the past 1981 Parent specification, e.g. the *different* “1981 inventions”, was not carried forward into the 1987 CIP specification as is required under section 120.

C) While applicant disagrees with the examiner’s position that the “1987 inventions” are different from the “1981 inventions”, applicant seems willing to acknowledge that the “1987 inventions” are in at least in some ways *enhanced and improved* versions of the 1981 inventions.

“In fact, both [the 1981 and 1987] specifications describe the inventions disclosed in the 1981 specification, although the 1987 specification contains many enhancements and improvements.”

[see the last two lines on page 9 of applicant’s supplemental response filed 5/6/02 in SN 08/470,571]

Because only the “enhanced and improved” 1987 versions of the 1981 inventions actually exist within the instant 1987 CIP specification, when citing section 112-1 support for the currently pending claims from the instant 1987 CIP disclosure, applicant’s citations inevitably comprise “enhanced and improved” subject matter ¹. Applicant, however, takes the position that this fact is irrelevant to the issue of priority under section 120.

“The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid ‘common subject matter’ support.” ²

[lines 5-8 on page 10 of the supplemental response]

¹ The examiner notes that this fact is blatantly obvious whenever applicant attempts to specifically show alleged dual section 112-1 support for each claim limitation of any given pending amended claim [e.g. as is exemplified via Appendix A of the amendment filed 6/7/2000 in 08/470,571]

² Throughout the prosecution history, applicant has maintained that “common subject matter” is not a real/actual requirement of section 120 but is instead a requirement that the examiner himself has created and imposed on the current applicant. It is not clear whether this quote reflects a departure from applicant’s past positions (?)

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The examiner disagrees with applicant's "way of thinking" for at least the following reason:

1) Suppose that the currently pending claims had indeed been introduced into an application that comprised the past 1981 Parent specification; e.g. instead of the instant application having the instant 1987 CIP specification as is currently the case. In this situation, a potential infringer wishing to make and use one of the 1987 "enhanced and improved" versions of applicant's 1981 inventions would have to have made an "educated determination" as to whether or not the making and using of the "enhanced and improved" version of the 1981 invention infringes the claims in question (e.g. being that the 1981 specification did not describe such enhanced/improved inventions). In such a situation there is at least potential *wiggle room* for the potential infringer to have concluded/argued that such an "enhanced and improved" system does not infringe the claim in question; i.e. the issue is purely a matter of the potential infringer's judgement.

2) Now introduce these same claims into an application having the instant 1987 CIP specification. Now there is no question that the potential infringer would be infringing the claims if he made and used the "enhanced and improved" version of the 1981 inventions because the required section 112-1 support for these claims, e.g. as has been cited & acknowledged by applicant himself during the prosecution of the CIP application, in fact comes from portions of the 1987 specification that explicitly describe the "enhancements and improvements" in question.

"The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid 'common subject matter' support."³

[lines 5-8 on page 10 of the supplemental response]

Thus, the wiggle room that exists when a given claim derives its section 112-1 support from the 1981 Patent specification evaporates when section 112-1 support

³ Throughout the prosecution history, applicant has maintained that "common subject matter" is not an actual requirement of section 120 but is instead an invalid requirement created and imposed on applicant by the current examiner. It is not clear whether or not this passage reflects a changed in applicant past position (?)

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for the same claim is derived from the instant 1987 CIP specification; i.e. the issue is no longer purely a matter of judgment as had been the case with respect to the past 1981 Parent specification. From this, it is clear that applicant's pending amended claims take on a different scope/meaning depending on which of the 1987 and 1981 specifications you use as the basis for deriving section 112-1 support. Therefor, "different" 1981 and 1987 inventions are effectively being claimed by each of applicant's pending claims given the "different" 1981 and 1987 subject matter from the "different" 1981 and 1987 specifications which must serve to provide "different" 1981 and 1987 section 112-1 support for each claim.

3) From the above, it is clear why applicant's currently pending claims which depend on applicant's 1987 CIP specification are not entitled to the earlier filing date of the past 1981 Parent application. Specifically, the instant 1987 disclosure imposes very real modifications onto the meaning/scope of the currently pending amended claims in a way that was not supported by the past 1981 Parent specification as originally filed.⁴ Allowing applicant to improperly use section 120 in this way, gives the applicant a way to retroactively modify the scope and meaning of pending claims via the specification of the subsequently filed CIP 1987, e.g. so as to eliminate "wiggle room" that was available to a potential infringers as of the 1981 filing date of the parent application, and yet improperly obtain a 1981 filing date for claims which have been modified to have such 1987 scopes/meanings.

4) So what in the law prevents applicant from improperly using section 120 in this fashion? As understood by the examiner, it is the fact that section 120 only entitles a claim in a later filed continuing application to the earlier filing date of a Parent if there is a "continuity of common subject matter" between the respective applications whereby this common subject matter defines precisely the "same claimed invention":

"However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications" [emphasis added]; [In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (18)]**

⁴ This is because the "unmodified and unenhanced" 1981 subject matter described in the past 1981 Parent disclosure simply does not exist within the instant 1987 CIP disclosure; e.g. "common subject matter" does not exist between specification.

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“Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.”

(emphasis added)

Kirschner, 305 F.2d 897 (C.C.PA1962)

D) In the first four lines on page 15 of the supplemental response filed 5/6/2002 in 08/470,571, applicant states:

“applicants further questioned [the examiner as to] why it would be necessary to incorporate the parent disclosure, by reference or in full-text format, if the subject matter of the parent application *is properly disclosed* in the CIP application in an integrated manner with the enhancements and improvements of the CIP application.” (emphasis added)

That depends on what applicant means by “*properly disclosed.*” To applicant, “*properly disclosed*” does not require that the claims be supported by “common subject matter” found in both applications.

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.”

(emphasis added)

[Page 141 of applicant’s response filed on 1/28/2002 in application S.N. 08/470,571]

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In contrast, the examiner maintains that “*properly disclosed*” requires continuity of “common subject matter” between applications for that which is claimed. Being such, if there is any way by which current applicant can use the section 112-1 support that is actually available in the instant 1987 CIP disclosure to “properly” show that the currently pending claims are in fact directed “solely” to 1981 subject matter previously described in the past 1981 Parent specification, i.e. “common subject matter”, then section 120 priority would be a “*given*”. To date, applicant has been unable to provide such a showing.⁵ Here, it is important to note that a direct path to such a “*proper*” showing would have been available to the current applicant had the *unenanced/unimproved* subject matter from the past 1981 specification *actually* been incorporated into the instant specification in a distinct and discernible fashion. This is, in essence, the answer to the question that has been asked by applicant.

“applicants further questioned why it would be necessary to incorporate the parent disclosure, by reference or in full-text format”

[the first four lines on page 15 of the supplemental response filed 5/6/2002 in 08/470,571]

Specifically, any applicant wishing to draft a claim in a later filed CIP application that is going to be directed *solely* to “subject matter” found in an earlier filed Parent application, e.g. thereby allowing the drafted claim to obtain the benefit of section 120 priority, would be wise to incorporate said “subject matter” from the parent application into the CIP specification in a clear and undisputable fashion. Incorporating the Parent specification by reference, or by literally carrying it forward in a substantially identical “full-text format”, are methods that are commonly used by applicant’s for this purpose. And for obvious reasons, the need to “incorporate” the parent’s subject matter in such a clear and undisputable fashion is especially true/“necessary” when the “subject matter” of the past parent disclosure is going to be extensively “re-worded”, “enhanced”, “improved” and “scattered” throughout vast quantities of new CIP added subject matter during its alleged migration to the specification of the subsequently filed CIP specification.

⁵ This is not a situation in which the “wording” that was used to described “common subject matter” has simply been changed between applications as applicant would now try to have one believe [note lines 7-11 on page 15 of the supplemental response filed in 08/470,571 on 5/6/02]. Instead, it is a situation in which “1981 inventions” from the 1981 specification were left behind at the time of filing the instant 1987 CIP specification in favor of the enhanced/improved/modified “1987 inventions” which are actually described within the instant 1987 CIP disclosure; a fact that is clearly self-evident whenever applicant attempts to specifically demonstrate “dual” 1987 and 1981 section 112-1 for that which is claimed [e.g. as is exemplified via Appendix A of the amendment filed 6/7/2000 in 08/470,571] .

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E) Applicant takes the position that he is allowed to use the “new subject matter” that is contained only within the instant 1987 CIP specification to fulfil the section 112-1 requirement for his pending claims and yet still obtain the earlier 1981 filing date of the 1981 Parent specification for these claims by alleging that some underlying principle or teaching from the 1981 specification is buried/embedded/hidden somewhere within the cited “new subject matter”.

“The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid ‘common subject matter’ support.”⁶

[lines 5-8 on page 10 of the supplemental response]

Here, applicant seems to suggest that it is “solely” alleged “underlying features” from the 1981 disclosure that are being claimed by the pending claim’s recited limitations, even though the passages from the instant 1987 specification that must be cited by applicant, for the expressed purpose of providing the required section 112-1 support for the claim’s limitations, necessarily comprise new/added 1987 subject matter that was introduced via the filing of the 1987 CIP specification. Apparently, it is applicant’s position that the added/new 1987 subject matter contained within applicant’s own citations of alleged section 112-1 support should be weeded out, discarded and/or ignored in order to allow the alleged underlying principles, ones that were allegedly carried forward from the past 1981 parent specification, to emerge therefrom (thereby allowing applicant’s subsequently filed CIP claims to obtain the earlier 1981 filing date of the parent application).

The examiner thinks not!

⁶ The examiner notes that the fact applicant is relying on the new “enhanced/improved” subject from his 1987 CIP to provide section 112-1 support for the claim is self-evident whenever applicant attempts to specifically show the alleged “dual” section 112-1 support for a given claim’s limitations via the different specifications [e.g. as is exemplified via Appendix A of the amendment filed 6/7/2000 in 08/470,571]

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F) In lines 16-19 on page 15 of the supplemental amendment filed 5/6/2002 in 08/470,571, applicant boldly alleges:

“that incorporating the parent [specification], either by reference or in full-text format, into a CIP application that disclosed the subject matter of the parent in an integrated fashion does nothing more than add unnecessary duplicative content to the CIP application.”

The examiner notes the following:

1) If applicant is suggesting that this is the situation that currently exists between his instant 1987 CIP specification and his past 1981 Parent specification, then the examiner suggests that applicant make the attempt to formally incorporate his past 1981 parent specification into his current 1987 CIP specification either by reference or in said full-text format in order to resolve the priority issue once and for all. Applicant is, however, put on notice that any attempt to amend the instant 1987 CIP specification in such a fashion will be vigorously objected to as introducing “NEW MATTER”; and

2) Given the present situation, having added a single a sentence to the 557 pages of text that comprise the 1987 CIP specification, stating that the 44 page specification of the past 1981 Parent application had been “Incorporated by Reference”, hardly seems to fall within the realm of “add[ing] unnecessary duplicative content to the CIP application.”

G) In lines 19-22 on page 15 of the supplemental amendment filed 5/6/2002 in 08/470,571, applicant alleges:

“applicant’s have established in their prior submissions that all of the fundamental teachings of the 1981 disclosure were carried forward to the CIP application, albeit in an integrated fashion with many enhancements and improvements of the CIP application.”

The current examiner knows of no prior submission or submissions made by applicant which has “established”, as fact, that *that* which is now claimed by applicant’s currently pending amended claims is directed “solely” to “fundamental teachings” from applicant’s past 1981 Parent disclosure which have allegedly been carried forward to the instant 1987 CIP specification. In fact, all attempts made by applicant to specifically identify the required section 112-1 support for the limitations of the currently pending amended claims

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have instead “established”, as fact, that *that* which is now claimed actually comprises ones the “many enhancements and improvements of the CIP application” that are not entitled to “priority” under section 120.

H) In lines 9-12 on page 10 of the supplemental response filed 5/06/2002 in SN 08/470,571, applicant states:

“The mere presence of the additional details and enhancement in the 1987 specification does not deprive applicant’s of the 1981 priority date unless the claim limitation or feature is only supported by such additional details and enhancements which are not found in the 1981 specification. See *Kennecot*, 835 F.2d at 1422.” (Emphasis added)

[Lines 9-12 on page 10 of applicant’s supplemental response filed 5/6/02]

It is not clear how the cited case law, e.g. *Kennecot*, 835 F.2d at 1422, supports applicant’s apparent position that a claim in a continuation-in-part application is entitled to the earlier filing date of a past parent application if only part of its required section 112-1 support comes from “new CIP subject matter” that was introduced via the filing of a CIP specification. This would suggest a situation in which the examiner could/should reject that portion of a pending claim’s scope which is allegedly supported by the “New Matter” of a CIP via valid intervening “prior art” while, at the same time, allowing that portion of the same pending claim’s “scope” that is directed “solely” to the subject matter of the Parent application to issue as a patent. Such a position does not make sense.

To the contrary, by claiming the benefit of section 120 priority for a given claim filed in a subsequently filed CIP application, an applicant is essentially “pledging” (e.g. putting everyone on notice) that the claim is directed “solely” to the subject matter that is found within the specification of the Parent application, and not to any of the “new subject matter” that has been introduced via the subsequently filed CIP.⁷

However, such a “pledge” must be supported by the CIP specification from which the claim depends. Namely, if a claim in a CIP application is going to be directed “solely” to the subject matter of a past parent application, then said subject matter of the past parent application must exist within said CIP specification being that the required section 112-1

⁷ That is, to determine the scope/meaning of the claim, one looks only to the subject matter of the parent application, which has been carried forward into the CIP application (i.e. *common subject matter*), to which the claim is necessarily “directed”.

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support for the claim must necessarily come from the instant CIP disclosure. Specifically, the subject matter of the parent that one wishes to claim must be carried forward from the parent specification into the CIP specification; hence the requirement of “common subject matter”. However, given the current state of applicant’s instant 1987 CIP specification, e.g. one in which past 1981 subject matter has been (at best) inseparably blended/modified with subsequently added new 1987 subject matter, it impossible for one to determine what of the past 1981 subject matter, if any, has been carried forward into the instant CIP disclosure. Being such, one cannot reasonably “pledge”/assume that a currently pending claim are (or even could be) directed solely to the past 1981 subject matter.

“The fact that the [section 112-1] support [that applicant] identified in the 1987 specification for a certain [claimed] features (or limitation) also happens to include additional features or details relating to the same underlying feature (or limitation) disclosed in the 1981 specification , does not mean that both specifications do not support the feature or limitation with similar and valid ‘common subject matter’ support.”

[lines 5-8 on page 10 of the supplemental response]

Again, why should a pending claim having limitations that are directed to even a smudge of new 1987 subject matter be entitled to the earlier 1981 filing date of the Parent specification which did not disclose that smudge of new 1987 subject matter?

“Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application.”

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

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I) In lines 3-7 on page 11 of the supplemental response filed 5/06/2002 in SN 08/470,571, applicant states:

“the starting point for determining whether an applicant is entitled to priority under section 120 is *what is being claimed*. Without identifying precisely what is being claimed, it is impossible to seriously undertake an analysis of whether sufficient support exists in both applications thus entitling applicants to a 1981 priority date”.⁸

The examiner is a bit surprised that applicant raises this issue after all of the section 112-1 requests which have been made by the Office throughout the present prosecution in hopes of getting applicant's clarification as to *precisely what it is* that applicant claims. In fact, the Office continues to struggle in its efforts to make such determinations for the 10,000 or so pending amended claims. In the past, when applicant has been asked to identify “*precisely what is being claimed*”, applicant has declined⁹ to provide such showings instead opting to take the positions:

1) That it is the examiner's job, not applicant's, to read and understand the 557 pages of applicant's current 1987 CIP specification in order to determine “precisely what it is being claimed” via applicant's 10,000 or so pending claims; and

2) That at least some of the limitations of applicant's 10,000 or so pending claims are actually directed to subject matter that is not described within in the instant 1987 CIP specification.

“the [examiner's] assumption that ‘all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure’ is mistaken and wholly unsupported.”¹⁰

[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

⁸ The examiner agrees with applicant's position noting that, without being able to identify precisely what it is that is being claimed, it is impossible to seriously undertake many other examining related activities too .

⁹ A notable exception being the most helpful claim charts of alleged “dual” section 112 support which applicant has, only on a few occasions, been willing to kindly provide [e.g. APPENDIX A in the amendment filed 6/7/2000 in 08/470,571].

¹⁰ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant 1987 specification. This is not to say that the resulting scope of the pending claim is limited only to that of the 1987 specification to which it must necessarily be directed.

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Because the claims are allegedly not directed to that which is described in the present 1987 specification, applicant does not wish to cite, or indeed is unable to cite, section 112-1 support from the instant CIP disclosure for these limitations [e.g. often times out of an expressed fear that a court, at some later date, might actually hold the scope/meaning of these limitations as being directed to subject matter that was actually disclosed within the instant 1987 CIP specification].

In regard to the section 112-1 issue that has now been raised by applicant, the following positions continue to be taken by the present examiner:

- 1) It has always been a desire of the Office to determine “precisely what it is” that applicant now claims. Being that it still remains so unclear as to “precisely what it is” that applicant now claims, clarification on the part of applicant is once again formally requested for the 10,000 or so pending claims. For the record, the current examiner has found applicant’s claim charts of alleged “dual” section 112-1 support to be the most helpful form of aid that applicant has provided to date because it at least attempts to match each claimed limitation to the specific teachings in the specification(s) that they are allegedly directed.¹¹
- 2) The examiner continues to adopt the positions expressed by Judge Luckern at the ITC:
 - a) **“that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] is difficult to understand, as it is dealing with many possible systems”;**
 - b) **“that despite complainant’s [i.e. the current applicant’s] attempts to point to the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] as illustrative of some claim elements, said specification has not been helpful in connecting individual claim language to distinct statements in the specification of the ‘277 patent that is supposed to provide an explanation of the claimed systems in issue”;**
 - c) **“that complainant’s [i.e. the current applicant’s] assertions in many instances of where support in the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] can be found for claimed**

¹¹ The process of showing a limitation-to-disclosure match for each limitation of each claim should be an easy task for applicant, if not a trivial one, being that the currently pending claims must be “*clearly anticipated*” by the teachings of applicant’s instant disclosure.

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elements ‘reads like the directions to a treasure hunt. There’s a piece here, there’s a piece there, it’s in there somewhere.’”; and

d) “ that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] and the claims in issue ‘are like ships passing in the night in the same ocean, but not necessarily sailing in the same direction.’”

[SEE: 1997 ITC Lexis 307, *258 (part I of II)]

The examiner again requests applicant’s help in determining “precisely what it is” that applicant now claims.

J) When one actually attempts to compare the “1987 inventions” that are described in the instant 1987 CIP specification with the past “1981 inventions” previously described in prior 1981 Parent specification, one finds significant differences and “inconsistencies” between the 1987 and 1981 inventions at every level of the respective written descriptions:

1) One finds that the instant 1987 specification sets forth circuit configurations for the current 1987 inventions which differ from the circuit configurations of the past “1981 inventions” previously described in the prior 1981 specification;

2) One finds that the instant 1987 specification sets forth more advanced signaling structures and advanced processing thereof than was set forth for the past “1981 inventions” previously described in the prior 1981 specification;

3) One finds that while the instant 1987 specification provides circuit diagrams which include a significant number of “blocks” having labeling and numbering identical to respective “blocks” found within figures the 1981 specification, the instant 1987 specification nonetheless associates new/expanded/different functions and operations to the 1987 blocks as compared to those which were associated with the respective blocks of the past 1981 specification; and

4) Even at the most basic level, one finds that the definitions coined for terminology that is used throughout the instant 1987 disclosure in order to describe the “1987 inventions” is significantly different/inconsistent in both scope and meaning of definitions that are coined for this same terminology in the prior 1981 specification [i.e. meaning that similarly worded teachings found within the

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respective 1987 and 1981 specifications can (and often do) have different scopes/meanings too].

K) In the last four lines on page 9 of the supplemental response, applicant takes the position that:

“[The examiner has] mistakenly assumed that the 1981 and 1987 specifications describe different and inconsistent inventions. In fact, both specifications describe the inventions disclosed in the 1981 specification, although the 1987 specification contains many enhancements and improvements.”

The examiner has “assumed” nothing of the kind. To the contrary, the examiner has made a significant effort to compare the disclosed “1987 inventions” with the disclosed “1981 inventions” in order to specifically identify the differences and inconsistencies that truly exist between them. In response to the examiner’s efforts, applicant has simply alleged that it is wrong and improper for the examiner to make such comparisons:

“In fact, applicant’s have found no cases addressing compliance with section 120 which suggests that the two disclosures identified to support a claim [e.g. from the 1981 and 1987] should or need be compared for similarity in any manner. Instead, the case law discussed above established that such comparison is unnecessary and indeed improper.”

[lines 8-11 on page 4 of the supplemental response]

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.” (emphasis added)

[See page 141 of the response filed on 1/28/2002 in application S.N. 08/470,571]

Yet in almost the same breath, applicant is willing to make unsubstantiated allegations that his current 1987 CIP specification and his past 1981 specification do in fact: 1) describe

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the “same invention”; 2) contain “common subject matter”; 3) have descriptions which are consistent with each other; etc,...

How in the world does applicant expect the examiner to refute or rebut such unsubstantiated allegations if the examiner is not allowed to compare the currently claimed 1987 subject matter from the instant 1987 specification with the 1981 subject matter from the past 1981 specification in order to show that the respective 1987 and 1981 disclosures do in fact: 1) describe “different invention”; 2) lack descriptions of “common subject matter”; 3) have descriptions that are “inconsistent” with each other; etc,... (?)

L) Applicant takes the position that his pending amended claims, e.g. claims which must derive their required section 112-1 support from the instant 1987 CIP specification, are entitled to the 1981 filing date of the 1981 specification provided that one cannot identify “inconsistencies” between the 1981 subject matter and the 1987 subject matter that are being claimed. This position is clearly rooted in applicant’s belief that section 120 does not require “common subject matter” between specifications.

“[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim.” (emphasis added)

[See page 141 of the response filed on 1/28/2002 in application S.N. 08/470,571]

The examiner does not share in this belief. Applicant’s pending claims are not entitled to 1981 filing date of the past 1981 Parent specification because the 1987 “subject matter” that is currently being claimed via the instant pending amended claims is not the same as the “subject matter” that was previously described in applicant’s past 1981 Parent specification; i.e. the “subject matter” now being claimed does not represent “common subject matter” and does not constitute the “same invention” with respect to the subject matter that was actually described in applicant’s past 1981 parent specification. Contrary to applicant, the examiner believes that “common subject matter” between applications is a very real requirement of section 120.

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M) 35 USC 120 (reproduced):

35 USC 120: Benefit of earlier filing date in the United States.

An application for a patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or terminations of proceedings on the first application or an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain specific reference to the earlier filed application.

In the last 12 lines on page 3, applicant cites only a select portion of a passage found in *In re Kirschner*, 305 F.2d 897 (C.C.PA1962) as the “authority” for setting forth the requirements of section 120. The examiner notes that the “complete” passage reads:

“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application. It does not require that the invention be described in the same way, or comply with section 112 in the same way, in both applications. And to determine what is the invention under consideration, one must be governed by the claims of the later application, because it is there one must look to determine what invention the “application for patent” referred to in the opening words of section 120 is for” (emphasis added)

Thus, for a currently pending claim to be entitled to the earlier filing date of a parent application under section 120, applicant’s own cited “authority” identifies two distinct requirements of section 120:

- 1) that “the invention” being claimed in the later filed CIP application must have been disclosed in the earlier filed Parent application in such manner so as to comply with the first paragraph of section 112; AND.....

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2) that said “invention”, as disclosed in the parent application in a manner that complies with the first paragraph of section 112, **be the “same invention” as that which is disclosed in the later application.**

In *In re Kirschner*, all of the involved parties had accepted the fact that “the invention” being claimed by each of the appealed claims was a chemical compound, and all involved parties had accepted the fact that this claimed chemical compound had indeed been disclosed in the disclosure of the CIP and the in the disclosure of the Parent application for which section 120 priority was being sought. Thus, as emphasized by the court in this decision, no party had ever questioned the fact that the “same invention”, e.g. the same disclosed compound, was being claimed with respect to both of the two disclosures (i.e. the second requirement cited above). Instead, the dispute over whether the appealed claims were entitled to section 120 priority pertained to the fact that different “utilities” for this “same claimed compound” had been disclosed in both the CIP and Parent disclosures. The court clearly reasoned that the “same invention” of the appealed claims was entitled to the earlier filing date of the parent application despite the differences in the respective “*disclosed utilities*”¹² for the *compound* being claimed.

In the present prosecution, the current fact pattern is essentially opposite to that which was addressed in *In re Kirschner*. Specifically, in the current situation, different subject matter being claimed is being claimed with respect to the two specifications whereas, in some cited examples, it is the disclosed utility for the respectively disclosed/claimed subject matter that appears to be the same/similar (e.g. the “Wall Street Week” embodiment). Being such, it seems improper for applicant to suggest that the factual scenario in *In re Kirschner* is in any way similar to that found in the present prosecution [note lines 20-21 on page 3 of said supplemental response].

¹² The court noted:

1) that the pending claims were directed only to a “compound” that was adequately disclosed in both applications and did not recite a specific one of the different “*disclosed utilities*” that had been disclosed; and

2) that “compounds” have innate properties which inherently define all of their “utilities” and thus any “*disclosed utility*” in a given specification for a “compound”, represents nothing more than a disclosed example of that compound’s *inherent* “utilities”.

The present applicant’s pending claims are not directed to a “compound” having such innate properties.

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N) One of the “enhancements and improvements” that was effected via the subsequent filing of instant 1987 CIP specification was a change made to the definition of the word “programming.” Whereas the past 1981 Parent specification defined the terminology as referring to Television and Radio transmissions, the instant 1987 specification “improved and enhanced” the 1981 definition of “programming” to explicitly cover “all forms of electronic transmission” now explicitly including “computer programming”, “broadcast print”, etc,... (e.g. additions to the radio/TV transmission of the past 1981 definition).

“everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform”;

[“programming” as defined in the past 1981 Parent specification]

“everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, computer programming, as well as combined medium programming”.

[“programming” as defined in the instant 1987 CIP specification]

Thus, whereas a potential infringer might have reasonably argued that any claim which derives its required section 112-1 support from the past 1981 specification cannot be fairly read on subject matter outside the Television and Radio transmission arts given the 1981 definition of “programming” (e.g. that these claims cannot be fairly read on computer software/programming transmissions), the wiggle room for such arguments has been effectively eliminated when the identically worded claims derive their required section 112-1 support from the instant 1987 CIP specification instead; i.e. being that the 1987 specification replaces the 1981 definition of “programming” with the new “improved and enhanced” 1987 definition of “programming” which has been expanded to explicitly covers “all forms of electronic transmission” including, i.e. explicitly, said “computer programming” transmissions.¹³

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using new subject

¹³ The examiner maintains that the differences in the respective 1981 and 1987 definitions of “programming”:

1) represent real differences in the respective “properties” of the different kinds of “signaling” that made up the respective 1987 and 1981 subject matter; and

2) are not simply different statements of “disclosed utilities” as applicant might try to allege in the future.

(e.g. once again, the 1987 SPAM-type signaling subject matter that is necessarily being claimed by the pending claims is explicitly inclusive of “computer software/programming” whereas the 1981 signaling subject matter was not).

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matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?

The short answer to this question is: NOT!

The point being that applicant had every right to draft a claim based on his past 1981 parent specification which contained the 1981 definition of "programming" and to take the position that a fair reading of the 1981 "programming" terminology, e.g. in the context of said past 1981 parent specification, encompassed "computer programming" transmission too; i.e. such an "argument" being necessary in view that that 1981 definition of "programming" did not include "computer programming". Instead, applicant elected to draft a new CIP specification which modified the definition of "programming" to explicitly include "computer programming" thereby eliminating any question that the fair reading of "programming", in the context of the new 1987 CIP, now encompasses "computer programming". Again, the examiner asks:

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?

(E.G. Why does applicant believe that his new 1987 definition of "programming" should be entitled to the 1981 filing date of the old 1981 "programming" definition which it replaced?; Why should applicant's "1987 inventions", which have been re-defined by the new 1987 definition of "programming", be entitled to the 1981 filing date of "past 1981 inventions" which were defined by the past 1981 definition of "programming?"; etc,...)

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O) In lines 20-26 on page 17 of the supplemental response filed 5/6/2002, applicant now alleges that the past 1981 Parent specification “implicitly” taught the downloading of “computer programming” (i.e. computer *software*).

“To the contrary, the 1981 definition [of “programming”] implicitly includes, and the 1987 definition [of “programming”] explicitly includes, computer programming in the definition”.

Even if this erroneous allegation were true, it still would be insufficient to establish a 1981 date for the 1987 “computer programming” feature because that which is “implied” by the 1981 specification is irrelevant to section 112-1 issues. To establish section 112-1 support for a given feature, the alleged feature must at least be “inherent” to the specification in question (i.e. it must be there). Thus, applicant’s current allegation confirms the position held by the examiner that applicant’s 1981 specification does not provide section 112-1 support for recitations directed to “computer programming/software.”

P) As noted above, applicant alleges that his past 1981 Parent specification “implicitly” taught the downloading of “computer programming” (i.e. computer *software*).

“To the contrary, the 1981 definition [of “programming”] implicitly includes, and the 1987 definition [of “programming”] explicitly includes, computer programming in the definition”.

The examiner disagrees with applicant’s allegation itself. To create support for the erroneous allegation, applicant attempts weave together a tapestry of “engineered” teachings and definitions:

1) Applicant falsely asserts that the past 1981 Parent specification literally used the term “programming” to refer to the “instruction signals” that were communicated through the TV/RADIO networks of its disclosed “1981 inventions”;

2) Applicant notes that the “instruction signals” of the past 1981 specification were described as comprising signals which instructed *preprogrammed* microcomputers to perform given tasks;

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3) Applicant cites an outside *Dictionary* definition of the term “program” to show that the term “program” was conventionally used to refer to “computer programming/software”; and

4) Finally, applicant argues that when one combines the above “engineered” teachings from his past 1981 Parent specification together, based on the cited *Dictionary* definition of “program”, one “implicitly” arrives at the cited *Dictionary* definition of “program.”

Unfortunately, for a variety of reasons, the tapestry woven by applicant falls apart at the slightest touch:

1) When one actually looks at the way in which the 1981 “programming” terminology was coined and used throughout applicant’s past 1981 Parent specification, i.e. the context in which it actually appears, one finds that the 1981 “programming” terminology unquestionably referred to signaling which represented scheduled TV/Radio shows (and not to “computer software” as applicant wishfully alleges). In this regard, one finds that applicant’s past 1981 Parent specification clearly distinguishes the 1981 “instruct signals” from the 1981 “programming” into which said 1981 “instruct signals” were embedded. Specifically, the past 1981 parent specification leaves absolutely no doubt that said 1981 “instruct signals” constituted ancillary/auxiliary signaling that was “associated” with, and “embedded” within, respective 1981 TV/Radio “programming”.

“One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the can duplicate the operation of a television studio automatically through the use of instructions and information signals embedded in programming either supplied from a remote source or sources or prerecorded” (emphasis added)

¹⁴
[lines 32-37 of column 3]

“Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programming and pass them, along with information identifying the channel source of each signal, externally to code reader, 72.” (emphasis added)

[lines 3-7 of column 11]

¹⁴ Citations have been obtained from US Patent #4,694,490.

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“The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct to remove signals from the programing as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct to add signals to programming as required”

[lines 36-42 of column 12]

“One particular advantage of these methods for monitoring programming is that, by locating the identifier signals in the audio and/or video and/or other parts of the programing that are conventionally recorded by, for example, conventional video recorders, ...”

[lines 25-29 of column 16]

“Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment”
(emphasis added)

[Lines 34-38 of column 17]

“Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions” (emphasis added)

[lines 39-41 of column 17]

“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...” (emphasis added)

[lines 42-49 of column 19]

“At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission” (emphasis added)

[lines 60-63 of column 19]

Given the above, it seems ridiculous for applicant to suggest that the term “programming”, e.g. in the context of the past 1981 specification”, ever referred to “computer software” (or even to applicant’s 1981 “instruct signals”).

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2) It is also quite clear from applicant's 1981 past parent specification that the "microcomputers" on the receiver side of the disclosed 1981 inventions were "**preprogrammed**" with the "computer programming/software" which told them *how to respond* to detected "instruct signals" that were embedded within received TV/Radio "programming." More specifically, it seems quite apparent that each of the 1981 "instruct signals" of applicant's 1981 inventions represented typical cuing signals/commands which instructed/triggered "**preprogrammed**" microcomputers to execute respective portions of preprogrammed software in order to perform predefined task/operation (e.g. the 1981 "instruct signals" told the 1981 microcomputers "to generate the overlay" whereas the pre-loaded 1981 computer programming/software told said 1981 microcomputers "how to generate the overlay that was to be generated").¹⁵

"Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.... These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays..." (emphasis added)
[lines 42-49 of column 19]

Clearly, contrary to applicant's erroneous allegations, there is no teaching in applicant's past 1981 specification indicates that applicant's 1981 "instruct signals" represented "computer software/programming" in any conventional sense of such terminology.

3) The past 1981 parent specification does not offer/provide a signaling mechanism and/or structure which would have been capable of handling the large continuous sequence of data bytes required to push "computer software" through TV and/or Radio networks. Such a signaling mechanism and structure was not provided until "SPAM" packeting was introduced via applicant's subsequently filed instant 1987 CIP specification. Thus, applicant's past 1981 parent specification was not enabling of the alleged "computer programming/software" feature (i.e. the alleged "computer programming/software" feature that the past 1981 specification did not even describe/disclose).

¹⁵ This being even more apparent when one reads the teaching of applicant's past 1981 Parent specification in light of the "enhanced and improved" teachings of applicant's 1987 CIP specification.

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Q) On page 150 of the amendment filed 1/28/2002 in 08/470,571, applicant states:

“The 1981 specification states:

It is the object of this invention to unlock this potential by the development of means and methods which permit programming to communicate with equipment that is external to television receivers and radio receivers, particularly computers and computer peripherals such as printers

1981 Spec., Col. 1, ll.36-41

Thus applicants’ 1981 specification makes it clear that ‘programming’ is not just TV and Radio shows- it can also include instructions, codes, and signals that are communicated to and control e.g., computers and computer peripherals. These instructions, codes, and signals clearly fall within the definition of programming and to find otherwise is to conveniently and purposefully overlook the entire purpose of the invention.” (emphasis added)

The examiner disagrees. In reading the 1981 Specification, it seems that “**the entire purpose**”¹⁶ to which applicant refers was the ability to provide multimedia presentations in which TV or Radio “programming” was be displayed with another supplemental media presentation; wherein the content of the supplemental media presentation was related to the content TV and Radio “programming” thereby *enhancing* the content of the displayed TV and Radio “programming”. To achieve this goal, ancillary “instruct signals” and/or other ancillary “information signals” were “associated” with, and “embedded” within, the TV or Radio “programming.” These embedded “instruct and information signals” allowed the TV and Radio *programming* “to communicate” with equipment that was external to the TV and Radio receivers in order to produce the supplemental media presentation. Specifically, the associated “instruct and information signals”, which were embedded within the Radio or TV “programming”, were themselves communicated to the external equipment by the “programming” thereby causing the external equipment to produce said supplemental media presentations. Being such, it is still crystal clear to the examiner that the 1981 “programming” terminology was used in a conventional sense by the 1981 specification so as to refer to TV and Radio signaling which represented scheduled TV

¹⁶ The examiner notes that applicant’s 1981 inventions appear to serve many purposes. Therefor, the examiner does not believe that “the invention” of applicant’s 1981 specification has one “entire purpose” as is now alleged by applicant; i.e. if it does have one “entire purpose”, then it is not clear to the examiner what that “entire purpose” actually is.

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and Radio shows. To suggest otherwise is to conveniently and purposefully ignore the fact that applicant's 1981 specification clearly distinguished the associated "instruct and information signals" from said "programming" into which these associated "instruct and information signals" were actually embedded:

"One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the can duplicate the operation of a television studio automatically through the use of instructions and information signals embedded in programing either supplied from a remote source or sources or prerecorded" (emphasis added)

[lines 32-37 of column 3]¹⁷

"Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72." (emphasis added)

[lines 3-7 of column 11]

"The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct to remove signals from the programing as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct to add signals to programing as required" (emphasis added)

[lines 36-42 of column 12]

"One particular advantage of these methods for monitoring programming is that, by locating the identifier signals in the audio and/or video and/or other parts of the programing that are conventionally recorded by, for example, conventional video recorders, ..." (emphasis added)

[lines 25-29 of column 16]

"Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment" (emphasis added) [Lines 34-38 of column 17]

¹⁷ Citations have been obtained from US Patent #4,694,490.

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“Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions” (emphasis added)

[lines 39-41 of column 17]

“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...” (emphasis added)

[lines 42-49 of column 19]

“At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission” (emphasis added)

[lines 60-63 of column 19]

R) When it comes to the Section 120 priority issue, applicant alleges that the “common subject matter” requirement is one that the instant examiner has created.

“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’” (emphasis added)

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant’s allegation seems to be betrayed within the current record by applicant’s own cited “authorities.” For example:

a) In the second paragraph on page 27 of the Appeal Brief filed on 9/17/96 in SN 08/113,329, applicant quotes from a Board of Appeals decision:

“Rather, all that is required to preserve an effective filing date as to common subject matter is copendency or a continuous chain of copendency” [emphasis added];

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b) In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 [**18]:

“However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications” [emphasis added];

and

“Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application. However, if a claim in a continuation-in-part application recites a feature which was not disclosed or adequately supported by a proper disclosure under section 112 in the parent application, but was introduced first or adequately supported in the continuation-in-part application such a claim is entitled only to the filing date of the continuation-in-part application.”

Looking at the claim charts that have been submitted by applicant in the past, it is quite evident that “common subject matter” between the 1987 and 1981 application is not being claimed; e.g. assuming that it is even disclosed. For example, the claim charts in question show that the 1987 scope/meaning for limitations found within all of the currently pending amended claims are based on 1987 subject matter (e.g. “SPAM”) that was first introduced via the filing of the 1987 CIP specification.

The examiner also finds it interesting that applicant does not believe in the necessity of “common subject matter”, and yet, on page 137 of the amendment filed 1/28/2002 in SN 08/470,571, cites *Studiengesellschaft Kohle v. Shell Oil Co.*, 112F.3d 1561 for the following quote:

“In other words, a claim complies with section 120 and acquires an earlier filing date if, and only if, it could be added to an earlier application without introducing new matter”

Given the new and expanded 1987 scopes and meanings that are necessarily imparted to the pending amended claims by the instant disclosure via section

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112, the currently pending amended claims would most certainly have introduced "New Matter" into the 1981 disclosure if added to the 1981 disclosure given their present 1987 scopes/meanings. Specifically, 1987 teachings that only exist within the instant "1987" disclosure necessarily contribute to the scope/meaning that must now be given to the limitations of the currently pending amended claims and thus, there is simply no way that these claim limitations can be interpreted as being limited **solely** to subject matter which was adequately disclosed in the 1981 parent application" via all of the requirements of section 112. And if the claims are not supported solely by the subject matter of the 1981 application, e.g. if there scope/meaning is at all modified and/or expanded by subject matter that is found only within the instant 1987 disclosure **from which section 112 support must necessarily be derived**, then they are not entitled to the 1981 filing data.

Clearly, the pending amended claim are not entitled to the 1981 filing date!

S) Applicant erroneously believes that his currently pending amended claims are entitled to §120 "priority" of his past 1981 parent specification even if they are not directed to "common subject matter." ¹⁸ According to applicant, applicant's pending amended claims are entitled to §120 "priority" even when said claims are directed to "different 1987 and 1981 subject matter" ¹⁹, provided that this different 1987 and 1981 subject matter provides "separate" (i.e. even different) 1987 and 1981 section 112 support for each of the pending claims' limitations.

"[§] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner's focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each

¹⁸ That is: that the currently pending claims derive section 112 support based on 1981 subject matter found in the past 1981 parent specification which has been carried forward into the instant 1987 CIP specification in the form of "common subject matter".

¹⁹ As opposed to the same *subject matter* that is "common" to both specifications.

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disclosure meets the requirements of §112-1 for a given claim.”
(emphasis added)

[See page 141 of the response filed on 1/28/2002 in application S.N. 08/470,571]

“Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of ‘common subject matter.’”

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant's belief does not make sense because, in applicant's world, one could obtain the benefit of an earlier filing date for a later filed invention using nothing more than *inventive/creative* claim construction: e.g.

- 1) One could disclose only “*Invention B*” in a CIP application that was very different from “*Invention A*” that was disclosed in an earlier filed Parent application; and
- 2) Yet obtain the earlier filing date of “*Invention A*” for “*Invention B*” by carefully crafting claims in the CIP application to have quasi-generic limitations that can be separately/differently read on “*Invention A*” and “*Invention B*” in order to obtain different/separate section 112 support therefrom.

Because such a belief does not make sense, when challenged, applicant modifies his belief to include an additional requirement; namely, that the different/separate showings of section 112 support provided by the respective 1987 CIP and 1981 Parent specifications cannot be “inconsistent” with each other. The examiner agrees with applicant's modified belief, however, the examiner disagrees as to what constitutes a “fatal inconsistency”:

- 1) According to applicant, in order for 1987 and 1981 subject matter to be “inconsistent” with each other, the 1987 and 1981 subject matter must comprise respective 1987 and 1981 features/teachings that contradict each other and are therefor mutually exclusive; whereas
- 2) The examiner believes that the respective 1987 and 1981 subject matter are “inconsistent” with each other anytime the 1987 specification imparts a scope/meaning to the “subject matter” that is being claimed that is different from the scope/meaning that would have been imparted to the claimed “subject matter”

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via the 1981 specification had the same claim been introduced into the past parent application instead of the instant CIP (e.g. the specifications are inconsistent whenever “common subject matter” is not being claimed).

Again, why should any of applicant’s currently pending claims ever be given an a claim interpretation that is “enhanced/improved” via the “enhanced/improved” subject matter of applicant’s 1987 CIP specification, and yet obtain the 1981 filing date of the past 1981 Parent specification for this “enhanced/improved” interpretation?

T) Clearly, it would be improper for applicant to use the “new” and “expanded” disclosure of his the 1987 CIP:

1) to expand and/or modify the teachings which were originally conveyed by the disclosure of his 1981 parent application;

2) to draft new amended claims based on these “new”, “expanded”, and/or “modified” teachings of the 1987 CIP disclosure so as to impart the “new” and “expanded” 1987 scope and meaning to the newly drafted amended claims; and then

3) to allege that the amended claims, having the “new” and “expanded” 1987 scopes and meanings, are entitled to the 1981 priority of the originally filed parent disclosure which does not support these “new” and “expanded” 1987 scopes and meanings.

And yet that is precisely what applicant is attempting to do by alleging a 1981 filing date for the currently pending amended claims which necessarily derive their required section 112 support from subject matter that is only contained within the 557 pages of applicant’s new and expanded “1987” instant disclosure.

U) The examiner has never taken the position that applicant’s currently pending amended claims should be viewed as being “limited” to one or more of the “embodiments of alleged invention” that are now described in applicant’s instant 1987 CIP specification. Clearly, they are not “limited” in this way.

Instead, it is the examiner’s understanding that applicant’s currently pending claims must be “directed” to “subject matter” that was described in applicant’s 1987 CIP specification whereby the “subject matter” that is described in the

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specification effectively defines the metes and bounds of the claims' limitations that are directed to it (e.g. the broadest reasonable interpretation that can be given to a claim). Being that the described "subject matter" of the specification will necessarily include descriptions pertaining to one or more embodiments of alleged invention described therein, if one were to "improve and enhance" the embodiments of the alleged invention described therein, one would clearly be at risk of "improving and enhancing" the subject matter that is being claimed too.

- ✧ In claiming "priority" under section 120 for the instant claims, applicant is effectively alleging that his instant claims are directed to "subject matter" from the past 1981 parent specification that has been untouched by the filing of the CIP application; i.e. that the pending claims are reciting "subject matter" from the past parent specification that has not been "improved"/"enhanced"/changed by the teachings that have been introduced via the filing of the CIP specification. While applicant alleges this to be true, applicant has been unable to support such allegation with hard evidence (e.g. citations of section 112-1 support from the instant 1987 CIP specification which show that the "subject matter" being claimed has not been "improved"/"enhanced"/changed by CIP introduced teachings). To the contrary, all of the evidence of record shows that the instant claims are directed to "subject matter" from the instant 1987 CIP specification that has been "improved and enhanced" during its alleged migration into the instant 1987 CIP specification from the past 1981 Parent specification. Namely, when attempting to find section 112 support for the claims, applicant has been unable to cited descriptions of the claimed "subject matter" from the 1987 CIP specification that are not permeated with CIP introduced "new matter." Applicant argues that this CIP introduced "new matter" should be ignored under section 120 for the sake of some "**higher goal**"²⁰. Again, the examiner thinks not..

V) Given the discussion set forth in part "S)" above, the examiner maintains that the 1987 subject matter of applicant's instant 1987 CIP specification is "inconsistent" with the 1981 subject matter of applicant's past parent specification because the 1987 CIP specification has introduced 1987 "enhancements and improvements" which effect the scope and meaning of everything that is disclosed in the 1987 CIP specification. Specifically, it is the examiner's position that applicant cannot draft a claim based on the current 1987 CIP

²⁰ The "higher goal" being the grab for the 1981 filing date of applicant's past parent specification for the enhanced/improved "1987 subject matter" that is clearly currently being claimed.

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specification whose scope/meaning has not been modified via the “new subject matter” of the subsequently filed CIP application. The following examples of such “inconsistencies” are hereby noted:

1) On page 149 of the response filed 1/28/2002 in SN 08/470,571, applicant now acknowledges the fact that the same “programming” terminology was defined differently within the respective 1981 and the 1987 disclosures. Specifically:

a) The disclosure of the 1981 parent application, which was not carried forward into the instant 1987 CIP disclosure, defined the “programming” terminology to mean:

“Everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform”; whereas

b) The instant 1987 CIP disclosure defined this same “programming” term to mean :

“Everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, computer programming, as well as combined medium programming”.

Amazingly, applicant now alleges that the scope/meaning that is respectively imparted to the same “Programming” terminology by these different definitions is the same. In fact, applicant alleges that the only differences that exists between the 1981 and 1987 “programming” definitions are ones that the instant examiner has supposedly created [see page 149 of the response filed 1/28/2002 in SN 08/470,571]. Who is applicant kidding?

Clearly, the 1981 definition defines the “programming” terminology as being Radio and TV transmissions, while the 1987 disclosure expands the definition be “everything that is transmitted electronically.” ²¹ And,

²¹ In fact, the 1987 definition not only expands the “programming” terminology to mean “everything transmitted electronically”, but this 1987 expanded “programming” definition explicitly adds “computer programming”, “broadcast print”, and “combined medium programming” to the “television and radio transmissions” which made up the 1981 “programming” definition.

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contrary to applicant's current accusation, the examiner was not present and played no part in creating or incorporating these vastly different 1981 and 1987 "programming" definitions into applicant's respective 1981 and 1987 disclosures.

While applicant can avoid literally using the "programming" terminology itself in the currently pending amended claims, the "expanded" 1987 definition of the "programming" terminology nonetheless continues to impart its expanded scope and meaning onto all of the 1987 disclosures that are described in terms of this expanded 1987 "programming" definition. And thus, in a like manner, these expanded 1987 disclosures continue to impart expanded 1987 scopes and meanings onto the limitations of the currently pending amended claims which necessarily derive required section 112 support therefrom. And being that the "programming" terminology does not constitute "common subject matter" between 1981 and 1987 disclosures, as is evident from its vastly different 1987 and 1981 definitions, it too refutes applicant's current claim to the 1981 date.

As is evidenced above, the instant 1987 disclosure explicitly defines and uses the "programming" terminology in a way that is vastly different both in scope and meaning from the way that this the same "programming" terminology was previously defined and used within the disclosure of the 1981 parent:

Evidencing the fact that one cannot assume that the terminology shared by the respective 1981 and 1987 disclosure is indicative of "common subject matter."

2) The "instruct signals" of applicant's 1987 specification comprised computer software/programming whereas the "instruct signals" of applicant's 1981 specification did not comprise computer software/programming:

Also evidencing the fact that one cannot assume that the terminology shared by the respective 1981 and 1987 disclosure is indicative of "common subject matter."

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3) While the “inconsistent” use/scope/meaning of the “programming” and “instruct signal” terminology between 1987 and 1981 applications is self-evident, the inconsistent use of other shared terminology is less conspicuous. The term “signal word” represents but just one example of the more subtle inconsistencies that exist between the 1981 and the 1987 disclosures.

The 1981 inventions of the 1981 specification were described as having distributed discrete digital information, in the form of “signal units”, from a transmitter site to a plurality of receiver as ancillary data embedded within TV and Radio transmissions. To transmit these “signal units”, the bits from one or more of the “signal units” were organized into one or more discrete strings of bits. Each of these discrete bit strings was then embedded, at a respective discrete time and/or location, within the transmitted TV or radio programming as a “signal word”. Specifically, as defined by the 1981 specification, each “signal word” represented a respective occurrence/“appearance” of ancillary signaling within the distributed programming:

“The term ‘signal word’ hereinafter means one full discrete appearance of a signal as embedded at one of time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio. Such strings may or may not have predetermined data bits to identify the beginnings and ends of words. Signal words may contain parts of signal units, whole signal units, or groups of partial and whole signal units or combinations”²²
[note lines 3-12 of column 3 in US Patent #4,694,490]

Although this 1981 definition of the “signal word” terminology has literally been carried forward into the instant 1987, it appears to have been carried forward only in a “cosmetic” sense. For while the 1987 disclosure includes a statement which indicates that the “signal word” terminology

²² “The term ‘signal units’ hereinafter means one complete signal instruction or information message unit. Examples of signal units are a unique code identifying a programming unit, or a unique purchase order number identifying the prior use of a programming unit, or a general instruction identifying whether a programming unit is to be retransmitted immediately or recorded for delayed transmission.” [note: lines 64-68 of column 2 and lines 1-3 of column 3 in US Patent #4,694,490; and lines 25-32 of the instant disclosure]

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will be used throughout the 1987 disclosure in the same manner as it was used throughout the 1981 parent disclosure [see the last 10 lines on page 14 of the instant disclosure], in practice, this statement is false and wholly untrue. To the contrary, in much to most to all of the remaining portion of the instant 1987, the term "signal word" is not used for the so stated/coined purpose. Instead, in much to most to all of the remaining portion of the 1987 disclosure the "signal word" terminology is used in a way that is (at best) inconsistent with its explicitly coined definition and (at worst) is "*repugnant*" to its explicitly coined definition. Specifically, in the remaining portions of the 1987 disclosure, the term "signal word" is now used to refer to the N-bit bytes of "computer-type" data which make up the digital information that is now distributed and/or processed by the 1987 inventions [e.g. note: the last three lines on page 54 of the instant disclosure; lines 4-8 on page 56 of the instant disclosure; lines 9-13 on page 59 of the instant disclosure; etc,...].

In summary, "signal word" was explicitly defined/coined early in the 1987 disclosure for the expressed purpose of referring to each occurrence/appearance of ancillary signaling within the distributed TV/Radio/Other programming (i.e. corresponding to its definition in the 1981 specification of the parent). However, via sleight of hand, the alleged meaning of the "signal word" terminology was quickly changed within the instant 1987 disclosure so as to refer to the "words"/bytes of digital computer-type data which comprise (and did not carry) said ancillary signaling; i.e. which is quite different from its use in the 1981 parent use/definition.

As with the "programming" terminology, the 1987 CIP disclosure's smeared use/misuse of the explicitly coined "signal word" terminology does not represent "common subject matter" with respect to the disclosure of the 1981 parent and therefor this smeared use/misuse of this terminology is not entitled to the 1981 filing date for reasons addressed above. The smeared use/misuse of the "signal word" terminology:

Evidences the fact that even terminology that has been explicitly coined in both application for the same alleged purpose, is not always what it appears.

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Such a condition simply adds to all the uncertainty as to exactly what subject matter, if any, has been carried forward from the 1981 disclosure into the 1987 disclosure.

[ALSO, SEE "APPENDIX C" ATTACHED HERETO]

4) As if all the existing uncertainty was not enough, it seems that applicant has come to a realization that some/much/most of the features now being claimed with respect to the instant 1987 CIP disclosure were not "explicitly" disclosed in the past 1981 Parent specification. Because of this, applicant now alleges that such features were "inherently" present and/or "implicitly" present within the teachings of the past 1981 parent specification.

"To the contrary, the 1981 definition [of "programming"] implicitly includes, and the 1987 definition [of "programming"] explicitly includes, computer programming in the definition".

[lines 20-26 on page 17 of the supplemental response filed 5/6/2002 in 08/470,571]

"An applicant is entitled to priority for a claim that was inherently described in an earlier application and explicitly described in a later application"

[note the last 15 lines on page 140 of the response filed on 1/28/2002 in application SN 08/470,571].

With respect to such new allegations, the following is noted:

a) What might have been "implicitly" taught in the past 1981 parent specification is irrelevant to section 112-1 support issues [for required section 112-1 support to have been provided, the recited feature must be there (the recited feature must be "inherent" in the teaching, not simply "implied")]; and

b) The implication of claimed subject matter being "inherently" embedded within teachings of the 1981 disclosure, e.g. and previously patented claims derived therefrom, is profound (e.g.

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especially as it pertains to the issue of double patenting). Thus, it is respectfully requested that applicant now identify:

1. All of those features from the 1987 disclosure that are "inherently" contained within teachings of the 1981 parent disclosure; and
2. All of those teachings from the 1981 disclosure which "inherently" contain features that are now explicitly disclosed in the instant 1987 CIP specification

[especially when the issue of "inherent" features pertains to subject matter that is currently being claimed within the instant pending amended claims or to subject matter which has been claimed within previously patented claims].

For the record: Applicant is reminded that a 1987 feature is only "inherent" in a 1981 teaching when the feature is necessarily found within the 1981 teaching (i.e. it must be there). The fact that the 1987 feature was most probably there, was most likely there, was almost certainly there, was obviously there, or was "implicitly" there is insufficient to establish something as being "inherent".

5) In order to transmit a wider range of control and messaging information than was previously possible, and in order to transmit this wider range of control and messaging information more efficiently within "signal word"-like intervals of Radio/TV/"ALL OTHER" forms of electronic transmissions, applicant's instant 1987 CIP disclosure introduced a packetized data format called "SPAM" (see figures 2E-2K of the instant disclosure). In applicant's 1987 "SPAM" environment, it was this "SPAM" packeting which carried an expanded range of "signal unit"-like information, and it was the "SPAM" packets themselves whose bits were organized into sequences so as to be transmitted within "signal word"-like intervals of TV/Radio/"ALL OTHER" forms of electronic transmission; e.g. the expression "-like" being appended here and above in order to emphasize the fact that the information carried within "SPAM" packeting, and the "strings" of bits derived from such "SPAM" packeting, are different from the 1981 "signal units" and 1981 "signal words" that were explicitly

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defined by the 1981 even though such terminology was carried forward, i.e. "*cosmetically*", into the 1987 disclosure [see part "2)" of part "S)" of this section]. The fact that this 1987 "SPAM" transport scheme was not disclosed within applicant's 1981 parent application was clearly argued by applicant themselves during ITC Investigation No. 337-TA-392:

"Even more difficult to understand is PMC's assertion that the French chef example [in the '490 patent], and I am quoting from their brief, 'it says nothing about the recipe being sent in any type of SPAM signal'Technically, they're correct, because the term 'SPAM signal' was introduced in the '277 patent or the specification which led to the '277 patent [i.e. the instant 1987 CIP disclosure], and it doesn't appear in the '490 patent [i.e. the 1981 disclosure of the past parent] "
[1997 ITC Lexis 307,*254 (Part II)]

As it applies to the issue of section 120 priority, the examiner maintains that the applicant [PMC] was more than just "*technically correct*". Specifically, while both of applicant's 1981 and 1987 inventions operated to transmit digitally encoded ancillary signaling within TV/RADIO programming, only the 1987 inventions did so using the more sophisticated 1987 packetized "SPAM" transport technology that was first introduced via the instant disclosure as originally filed within the 1987 CIP. And because applicant submits that all of the recited auxiliary "signaling" of the currently pending claims derive their required Section 112-1 support from the more advanced 1987 "SPAM" technology of the instant 1987 CIP specification, applicant refutes his own claim to the 1981 date of the parent application for these claims being that the 1987 "SPAM" technology now being claimed was not disclosed or supported by the past 1981 parent's specification.

[NOTE: "APPENDIX A" of applicant's response filed 6/7/2000 in SN 08/470,571; and "APPENDIX C" of this Office action].

In summary, because all of the currently pending amended claims have at least one limitation whose scope and meaning is defined by 1987 "SPAM" signaling (a fact that is evident in all of the claim charts that applicant has submitted to date for the purpose of demonstrating 112-1 support), and because the scope and meaning defined by "SPAM" exists only in the instant 1987 disclosure, all of the currently pending amended claims are (at best) only entitled to the 1987 filing date of the originally filed CIP

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application; e.g. none of the claims are entitled to the 1981 priority date of the parent disclosure which did not describe "SPAM".

6) Applicant alleges that many/most/all of his pending claims derive required section 112 support from the "*WALL STREET WEEK*" embodiment that was described in the instant disclosure (wherein said instant disclosure was originally filed within a CIP application on 9/11/1987). During the present prosecution, applicant has alleged that these same pending claims are entitled to priority under Section 120 based on a similar "*WALL STREET WEEK*" embodiment that was described in the disclosure of the parent application filed 11/3/81. Since applicant's 1987 disclosure is different from applicant's 1981 disclosure, and since applicant's 1987 disclosure did not formally incorporate the 1981 disclosure into the 1987 disclosure physically or via an "*incorporation by reference*", the pending claims are only entitled to 1981 priority for the subject matter that was common to both disclosures. While the "*WALL STREET WEEK*" embodiment that is described in applicant's 1987 disclosure and the "*WALL STREET WEEK*" embodiment that is described in applicant's 1981 disclosure have their similarities, the actual methods/details/structures used to carry out these two "*WALL STREET WEEK*" embodiments are quite different. The following is provided to exemplify such differences:

a) It is noted that:

1) applicant's 1987 disclosure references figure 1 of the 1987 disclosure as illustrating the receiver structure that was used to implement the 1987 "*WALL STREET WEEK*" embodiment [note the discussion which begins in line 21 on page 20 of applicant's 1987 disclosure]; and

2) applicant's 1981 disclosure references figure 6c of the 1981 disclosure as illustrating the receiver structure that was used to implement the 1981 "*WALL STREET WEEK*" embodiment [note the discussion which begins on line 31 of column 19 of US Patent #4,694,490].

While these two figures use a common label "MICROCOMPUTER" and reference numeral "205" to identify one element of the

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respective structures, the respectively identified elements are clearly different in both structure and operation:

showing that, as with applicant's use of common terminology, it would also be erroneous for one to assume that common labels and common reference numerals were used in applicant's 1981 and 1987 disclosures as an indication of common elements or "common subject matter".

The fact that commonly labeled elements in applicants 1981 and 1987 disclosures represent different structures/operations/scopes is evidenced in the following:

1) the "MICROCOMPUTER" (205) of applicant's 1987 disclosure actually comprised the circuitry required for overlaying locally generated graphics over the related/received TV signal broadcast.

Whereas, in contrast, the "MICROCOMPUTER" (205) of applicant's 1981 disclosure did not comprise such circuitry but instead outputted locally generated graphics to the TV receiver so that they could be overlaid over a related/received TV signal broadcast;

2) the "MICROCOMPUTER" (205) of applicant's 1987 disclosure actually comprised the circuitry required for receiving, loading, and running **downloaded** computer *software* (i.e. the disclosed "program instruction set") which was used to control the "MICROCOMPUTER"(205) of applicant's 1987 disclosure to execute functions defined by ones of later received discrete instructions. Whereas, in contrast, the "MICROCOMPUTER" (205) of applicant's 1981 disclosure was **pre-programmed** with computer *software* which was used to control the "MICROCOMPUTER"(205) of applicant 1981 disclosure to execute functions defined by ones of received discrete instructions;

b) In view of the differences in structure that is set forth in part a) of this paragraph, it is clear that the method used to overlay graphic images on a related/received TV signal broadcast in the 1987 "WALL STREET WEEK" embodiment is quite different from the

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method used to overlay graphic images on a related/received TV signal broadcast in the 1981 "WALL STREET WEEK" embodiment. Most notably, in the 1981 "WALL STREET WEEK" embodiment the overlay method was performed by cuing a microcomputer with instructions signals (e.g. with some unspecified type of cuing signals) which caused the microcomputer to execute ones of locally stored software instructions which were required to generate, output, and overlay locally generated graphics onto a received/related video signal broadcast whereas, in sharp contrast, in the 1987 "WALL STREET WEEK" embodiment the overlay method was performed by first **downloading software** to the microcomputer and then cuing the microcomputer with instructions signals (e.g. cuing signals) which caused the microcomputer to execute the downloaded software to generate, output, and overlay locally generated graphics onto a received/related video signal broadcast.

c) The examiner agrees that applicant is entitled to the 1981 priority date only for those claims of the present application which are limited to subject matter that was **common** to both of applicant's 1981 and 1987 disclosures; i.e. that is limited to the subject matter that was previously disclosed in the 1981 parent. Under the present circumstances ²³, it is maintained that applicant is not entitled to the 1981 priority date for claims in which the **same/common support** can not be shown to exist in both of applicant's 1981 and 1987 disclosures. More specifically, the examiner rejects any allegation that the currently pending amended claims are entitled to the priority of their 1981 disclosure for claims which depend from their 1987 disclosure when it can be shown/alleged that each claim has different interpretations which allow them to be read on applicant's 1987 "WALL STREET WEEK" embodiment (via a first interpretation) and on applicant's 1981 "WALL STREET WEEK" embodiment (via a second interpretation

²³ The present disclosure: 1) comprises the 1987 disclosure and is, at best, a CIP of the disclosure filed in 1981; and 2)

comprises the 1987 disclosure into which the 1981 disclosure has not been incorporated (i.e. neither literally nor by reference).

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that is different from the first); i.e. priority to the 1981 disclosure should/will only be given if applicant can show that the way that the claims are being interpreted is the same for both disclosures (i.e. if the teachings on which each claim is based is **common** to both disclosures). To permit otherwise, would improperly create a tool by which an applicant could obtain the earlier filing date of a first filed invention, for a later filed invention, by carefully drafting subsequently filed claims in a manner which allows said drafted claims to be read on both inventions via different interpretations of the same claims. In the present application, it would be improper for the examiner to give a 1981 priority date to claims that are directed to applicant's 1987 "WALL STREET WEEK" embodiment even if it can be shown that the same claims can be interpreted in a manner which allows them to be read on applicant's 1981 "WALL STREET WEEK" embodiment; i.e. unless it can show that the support that is provided for the claims by both disclosures is in fact the same/common to both disclosures. Because the disclosed structures and processes used to implement applicant's 1987 "WALL STREET WEEK" embodiment clearly differ from the disclosed structures and processes used to implement applicant's 1981 "WALL STREET WEEK" embodiment (note: parts a and B of this paragraph), the examiner maintains that the subject matter which is actually common to both disclosures, e.g. that subject matter of the 1987 disclosure which is actually entitled to priority of the 1981 disclosure, if any, is very small indeed.

7) As is evident from the claim charts filed in SN 08/470,571 on 6/7/2000, all of the recitations that are directed to the signals/instructions/data that are conveyed as ancillary signaling within Radio and TV Programming transmissions, derive their required Section 112 support from the "SPAM" signaling that was first introduced by applicant's "1987" instant disclosure. Therefor, the scope and meaning that must be given to these signals/instructions/data recitations under section 112, e.g. their broadest reasonable interpretations, is necessarily defined/interpreted based said on said "SPAM" signaling. However, "SPAM" signaling was not disclosed in the 1981 parent and, therefor, applicant's claim to the earlier 1981 filing date is refuted; i.e. the scope/meaning imparted to the currently

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pending amended claims by "SPAM" of the instant "1987" disclosure would not have been imparted to these same limitations by the earlier filed 1981 disclosure which lacked any discussion of "SPAM" therein; e.g. evidencing the fact that a "different invention"/"New Matter"/"different subject matter" has now been disclosed and claimed within the instant application.

8) The examiner notes that the basic requirements of section 120 includes "continuity of disclosure". Specifically, for priority to an earlier filing date to be established, section 120 requires that the invention now sought to be patented in a child application to have been "disclosed in the manner provided by the first paragraph of section 112" within the disclosure of the parent application. Significantly, section 120 does not indicate that only the descriptive requirement of section 112-1 must be met, but instead it indicates that all of the requirements of section 112-1 must be met [e.g. this includes the "enablement" requirement and the "best mode" requirement too].

TRANSCO [38 F.3d 551; 32 U.S.P.Q.2D (BNA) 1077] was cited in the last Office action. The TRANSCO decision determined that one is not required to update his "best mode" when filing a continuation. Thus, it is true that the current applicant was not required to update his "best mode". However, applicant chose to update it. Unfortunately, in *dicta*, Judge Rich warned that requiring an applicant to update the best mode when filing the continuation application defeats the purpose of the "continuation":

"It must be understood that the introduction of a new best mode disclosure would constitute the injection of 'new matter' into the application and automatically deprive the applicant of the benefit of the earlier filing date of the parent or original application for any claim whose validity rests on the new best mode disclosure".

During the present prosecution, the examiner has simply adopted the position of Judge Rich as set forth in this decision. The examiner acknowledges that TRANSCO has been cited by the examiner for the

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clarity in which its *dicta* explains the current examiner's understanding of the present issues, and not for "authority" given by the decision.

9) The receiver station circuitry of applicant's 1981 inventions, e.g. that disclosed in the 44 page disclosure of the 1981 parent application, all appear to have been:

a) "pre-programmed" with the computer programming (i.e. software) that was necessary to detect and recognize the occurrence of certain predetermined digital codes in data that was embedded within received TV and Radio program transmissions; and

b) "pre-programmed" with the computer programming (i.e. software) that instructed the receiver station circuitry as how to respond when a given one of these certain digital codes was in fact detected/recognized.

Specifically, in the 1981 disclosure, the receiver side circuitry was pre-programmed so as to be effectively "triggered"/"cued" by certain detected/recognized ones of the embedded digital codes in order to executed a respective portion of the pre-stored software (i.e. a respective "subroutine") thereby causing the receiver station to operate in a predetermined fashion.

In contrast, the receiver station circuitry of applicant's 1987 inventions, e.g. that disclosed in the 557 page disclosure of the 1987 CIP, had the advantage that the pre-programmed software itself could now be changed/modified (i.e. "re-programmed") via a new and very different type of data, i.e. "SPAM" messages, which were now embedded within the received TV and Radio programming. The ability to re-program the receiver stations from a distance (e.g. remotely) meant that the way in which the receiver stations of the system operated/responded to detected/recognized digital codes (now transmitted within "SPAM messages" too) could be change on the fly (i.e. without a visit from a service technician being necessary).

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Given the above, it is clear that the 1987 inventions do not represent "common subject matter" with respect to the 1981 inventions even though they can both could be operated, in very different ways, to produce/provide a similar effect/"application"; e.g. such as respective 1981 and 1987 "WALL STREET WEEK" applications. However, the vast difference in the nature of the 1987 and 1981 inventions appears to be partially masked by the repugnant use (i.e. misuse) of the "computer program" terminology by the 1987 disclosure to encompass things other than computer "software". For example, in lines 13-20 on page 427 of the instant disclosure, the 1987 "invention" was explicitly described as comprising a computer system which operated to produce combined medium combining at respective subscriber stations via the transmission of one "computer program" (e.g. software) to all the computers at all of the subscribed stations. Yet, as an alleged example such computer system operation (e.g. lines 20-34 on page 427), the 1987 disclosure repugnantly cites an operation during which the transmitted SPAM messages were carrying codes which only triggered/cued specific receiver responses within already pre-programmed/re-programmed receiver station circuitry; e.g. as opposed to actually citing an operation during which "software" was being downloaded to re-program the receivers (e.g. as described in lines 5-21 on page 24 of the instant disclosure). By using the "computer program" terminology in this repugnant fashion, the 1987 disclosure attempts to impart some legitimacy to the erroneous claim that the 1981 disclosure described the downloading of "computer software/programming" too; i.e. the argument being that because the trigger/cuing type codes of the 1987 disclosure have been erroneously defined as having comprised "computer programing" (e.g. software), then the corresponding cuing/trigger codes of the 1981 disclosure must be erroneously considered computer programming/software too [a position which also appears to be reflected in applicant arguments (e.g. note example #2 under "Section II" in the Office action mailed on 8/27/01 in SN 08/470,571)]. The result is still further confusion!

10) etc,....

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SECTION II: Arguments/Allegation (addressed)**1) "Interactive Video" recitations [note the discussion on page 106 of the response filed SN 08/470,571]:**

The only place that the terminology "interactive video" is ever used in the entire 557 pages of applicant's instant "1987" disclosure is that occurring line 22 on page 8. And at this one occurrence, applicant has in fact used the terminology in its conventional sense so as to refer to the retrieval/serving of stored video information based on requests/desires/inputs of a user.

In contrast to such conventional "interactive video" systems, applicant's 1987 disclosure was directed to inventions that provided "personalized programming" (e.g. the "WALL STREET WEEK" representing but one embodiment of such inventions) wherein such "personalized programming" was created by "automatically" displaying locally generated "personalized" information over received "programming" when the locally generated information has specific relevance to said received programming [note lines 21-23 on page 27 of the instant disclosure]. Further, as noted before, it was the expressed intent of applicant disclosure to provide the personalized programming "automatically" and without viewer interaction [SEE: lines 27-34 on page 11 of the instant disclosure; lines 18-20 on page 91 of the instant disclosure; lines 13-34 on page 427 of the instant disclosure; etc].

Despite the original teachings and understandings set forth by the instant disclosure as originally filed, applicant now alleges/argues that the receiver of his system might now be construed as a "interactive video" apparatus in the same way that an alarm clock might be construed as an "interactive" apparatus. The examiner thinks not. Again, in the one instance that "interactive video" was used in the instant disclosure seems to show that applicant understood the meaning/significance of the "interactive video" terminology as conventionally used by those of ordinary skill in the art; i.e. an understanding which applicant appears to have lost with the passage of time given his current arguments.

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2) Applicant continues to misunderstand and/or misrepresent the Teletext "prior art".

The examiner notes that those of ordinary skill in the art, at the time of applicant's alleged invention, had long recognized the fact that the vacant lines which occur during the VBI of transmitted TV programming transmissions could be used to carry addition auxiliary/ancillary information through a TV network. It had also long been recognized that coded character/graphic image data represented one type of information which was to be desirably conveyed by these vacant lines. The transmission of such coded character/graphic images was known as "Teletext".

Because of inherent bandwidth and noise considerations, it was found that each vacant line of transmitted TV programming could only carry between 30 and 40 bytes of digital information. In contrast, to transmit enough coded data to convey a full character/graphics video frame, it was found that somewhere between 700-800 bytes of coded data was needed. Obviously all 700-800 bytes of codes data could not fit within a single vacant line period that was only capable of carrying between 30 and 40 bytes. Therefor, in order to convey coded data representing the full character/graphics frame within the vacant line intervals of the transmitted TV programming, the 700-800 bytes of each coded image frame had to be broken up into a plurality of discrete 30 to 40 bytes chunks/portions and conveyed via a respective plurality of the vacant line periods. On the receiver side of the system, the conveyed chunks/portions of a coded image frame which was to be received/displayed had to be: identified in their respective video line periods; recovered/extracted from their respective line periods; and re-assembled back into the original 700-800 byte sequence. The examiner maintains that all "standardized" Teletext systems operated to convey coded character data in the manner discussed above.

Additionally, at the time of applicant's alleged invention, those skilled in the art had recognized that these "standardized" Teletext systems could transmit other types of data using the same data "page" format that was used to carry the 700-800 bytes of coded character/graphic data. For example, it was understood by those of ordinary skill in the art that 700 to 800 bytes of "computer software" could be conveyed in the vacant lines of transmitted TV programming as Teletext "pages", in the same way that the 700-800 bytes of coded character/graphics data had been conveyed; e.g. by breaking 700-800 byte sections of software down into the required 30-40 byte chunks/portions that were required in order to fit within respective vacant TV line intervals. The transmission of computer software via "standard" Teletext pages was conventionally known as: "*Telesoftware*".

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Given the above, the examiner maintains that applicant's suggestion that "standardized" Teletext systems did not convey its "information" as discrete signal chunks/portions evidences a very real misunderstanding and/or misrepresentation of conventional Teletext "prior art" on the part of applicant. In fact, applicant's latest position constitutes another link in a long chain of previously submitted misunderstandings/misrepresentations of such Teletext "prior art":

- 1) Applicant has erroneously alleged that coded Teletext character/graphics data itself comprised displayable data which was simply received and transferred directly to a display device for display thereby requiring no signal processing; e.g. when in fact coded Teletext data actually represented respective "series of instructions" which were used to instruct the Teletext decoders as to how to "locally generate" desired TV images/frames [note "APPENDIX E" attached hereto];
- 2) Applicant has erroneously alleged that Teletext decoders were not "signal processors"; i.e. according to applicant's erroneous allegations, Teletext decoders only buffered and passed received Teletext data directly to a display device for display thereon without any "signal processing" thereof (e.g. such a characterization of Teletext decoder operation is simply untrue);
- 3) ETC,...

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SECTION III: Additional Issues (addressed)

1) In lines 2-8 on page 142 of the amendment filed on 1/28/2002 in application SN 08/470,571, applicant suggests that the examiner has objected to the fact that applicant provided citations of dual 1981 and 1987 section 112 support for the limitations of the pending amended claims. No such objection has ever been raise by the examiner. To the contrary, the examiner finds such citations of dual support to be most helpful (i.e. when presented in the form of claim charts).

Having said this, the fact remains that examiner/Office was unquestionably misled by the many statements made by applicant concerning the "consequences" of Section 120 "priority". The reason that these statements misled the examiner/Office seems self evident from the statements themselves. For example, in the last 7 lines on page 24 of the Appeal Brief filed in SN 08/113,329 on 9/17/1996, applicant states:

"The case law makes clear that the only inquiry concerning claims filed in a subsequent continuation application pursuant to Section 120 is whether they are adequately supported in under Section 112, first paragraph, in the initial application. If the support exists, the inquiry is at an end."

And the statement made in the remarks section of many amendments stating that:

"The present application claims priority under 35 USC §120 of the following applications.....Consequently, Applicants will demonstrate disclosure only with respect to the '81 case,..." [e.g. see lines 9-21 on page 000507 of the Appendix in the document mailed on 9/10/01 in SN 08/474,139]

Such statements misled the examiner/Office into believing that, as a consequence of Section 120, applicant was permitted to use the disclosure of his 1981 parent application alone, e.g. in place of the instant 1987 disclosure, to fulfill section 112 requirements when addressing/replying to Section 112 rejections. However, the examiner/Office now understands that, because applicant's past 1981 parent disclosure was not incorporated into the instant disclosure, the 1981 specification cannot be relied upon by applicant for showings of section 112 support when addressing/responding to rejections

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made under Section 112; i.e. all section 112 Support must come from the instant "1987" disclosure alone.

The "*objections*" made by the examiner in the last Office Action were raised because the examiner perceived a continuation, on the part of the applicant, of the same arguments that misled the examiner/Office in the first place. By raising these "*objections*", the examiner hoped to elicit a response from applicant acknowledging the fact that the instant "1987" disclosure was the only disclosure which could be used to fulfill the requirements of section 112 with respect to the limitations of the currently pending amended claims (the significance of the 1981 disclosure is relegated only to the secondary issue of Section 120 priority). The examiner wished to make sure that the examiner and applicant were now on the same page concerning this issue. And, at least one point in applicant's last response, the desired acknowledgment appears to have been provided [see the last 5 lines on page 141 of the amendment filed on 1/28/2002 in SN 08/470,571].

2) In the last 5 lines on page 141 of the response filed on 1/28/2002 in 08/470,571, applicant now acknowledges that the 1981 application was not incorporated into the 1987 application. As a consequence, applicant also appears to understand that all Section 112 support must come solely from the "instant" 1987 disclosure if the section 112 requirements are to be satisfied. If such is true, then it is not understood how applicant can now adopt the position:

"the [examiner's] assumption that 'all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure' is mistaken and wholly unsupported."²⁴
[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

Namely, if all section 112-1 support for all of the claims' limitations must necessarily come from the instant "1987" disclosure alone (e.g. in light that the disclosure of the 1981 parent was not incorporated into the instant 1987

²⁴ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant specification. This is not to say that the resulting scope of the pending claim is limited only to that which it must necessarily be directed.

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disclosure), then how can a limitation of a claim be directed to (i.e. obtain required section 112-1 support from) anything but that which is described within the said instant 1987 disclosure? Is applicant suggesting that the pending amended claims are **not** necessarily directed to, do **not** necessarily derive section 112-1 support from, and are **not** necessarily claiming, subject matter that is found in the instant 1987 disclosure? Further clarification is most urgently needed.

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SECTION IV: During the present prosecution, many of the same issues have been raised in different ones of the many copending applications. In at least some cases, these issues appear to have been handled and addressed inconsistently between applications. Thus, the following “list” of positions taken by the examiner/Office in regard to such overlapping issues has been created, and will be maintained by the Office, in an attempt to ensure consistency in the way that these issues are handled between applications in the future.

THE EXAMPLES:

1) In lines 2-8 on page 142 of the amendment filed on 1/28/2002 in application SN 08/470,571, applicant suggests that the examiner has objected to the fact that applicant provided citations showing dual 1981 and 1987 section 112 support for the limitations of the pending amended claims. No such objection has ever been raised by the examiner. To the contrary, the examiner found applicant's citations of dual support to be one of the most helpful aids that applicant has provided to date (i.e. when presented in the form of claim charts).

Having said this, the fact remains that examiner/Office was unquestionably misled by the many statements made by applicant concerning the “consequences” of Section 120 “priority”. The reason that these statements misled the examiner/Office seems self evident from the statements themselves. For example, in the last 7 lines on page 24 of the Appeal Brief filed in SN 08/113,329 on 9/17/1996, applicant states:

“The case law makes clear that the only inquiry concerning claims filed in a subsequent continuation application pursuant to Section 120 is whether they are adequately supported in under Section 112, first paragraph, in the initial application. If the support exists, the inquiry is at an end.”

And statements made in the remarks section of many amendments in which applicant states:

“The present application claims priority under 35 USC §120 of the following applications.....Consequently, Applicants will demonstrate disclosure only with respect to the ‘81 case,...”

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[e.g. see lines 9-21 on page 000507 of the Appendix in the document mailed on 9/10/01 in SN 08/474,139]

These statements misled the examiner/Office into believing that, as a consequence of Section 120, applicant was permitted to use the disclosure of his 1981 parent application alone, e.g. in place of the instant 1987 disclosure, to fulfill section 112 requirements when addressing/replying to Section 112 rejections. However, the examiner/Office now understands that, because applicant's past 1981 parent disclosure was not incorporated into the instant disclosure, the 1981 specification cannot be relied upon by applicant for showings of section 112 support when addressing/responding to rejections made under Section 112; i.e. all section 112 Support must come from the instant "1987" disclosure alone.

The "*objections*" made by the examiner in 08/470,571 were raised because the examiner perceived a continuation, on the part of the applicant, of the same arguments that misled the examiner/Office in the first place. By raising these "*objections*", the examiner hoped to elicit a response from applicant acknowledging the fact that the instant "1987" disclosure was the only disclosure which could be used to fulfill the requirements of section 112 with respect to the limitations of the currently pending amended claims (the significance of the 1981 disclosure is relegated only to the secondary issue of Section 120 priority). The examiner wanted to be sure that the examiner and applicant were now on the same page concerning this issue. And, on at least one occasion, such an acknowledgment appears to have been provided by applicant [see the last 5 lines on page 141 of the amendment filed on 1/28/2002 in SN 08/470,571].

2) Applicant does not believe that "common subject matter" is required for "priority" under Section 120. Instead, according to applicant, the only thing that applicant needs to do in order to obtain the earlier 1981 filing date for his pending amended claims is to show that each of his pending amended claims can be given different 1987 and 1981 claim interpretations

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which allows each claim to be supported, in parallel, by "different subject matter" from the 1981 and 1987 specifications.

"[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner's focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim." (emphasis added)

[Page 141 of applicant's response filed on 1/28/2002 in application S.N. 08/470,571]

"Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of 'common subject matter.'"

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

Applicant's position seems to be wrong.

"However, as mentioned earlier, a continuing application is entitled to rely on the earlier filing date of an earlier application only with respect to subject matter common to both applications" (emphasis added)

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

"Any claim in a continuation-in-part application that is directed solely to subject matter adequately disclosed under 35 U.S.C. 112 in the parent application is entitled to the filing date of the parent application."

[In *Transco Products, Inc., v. Performance Contracting, Inc.*, 32 USPQ2d 1077 (**18)]

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“Assuming the common inventorship, copendency, and cross-reference required by section 120, that section further requires only that the invention be disclosed in the parent application in such manner as to comply with the first paragraph of section 112 and be the same invention as that disclosed in the later application.” (emphasis added)
[Kirschner, 305 F.2d 897 (C.C.PA1962)]

3) In the last 5 lines on page 141 of the response filed on 1/28/2002 in 08/470,571, applicant acknowledged that the 1981 application was not incorporated into the 1987 application. As a consequence, applicant also appears to understand that all Section 112 support must come solely from the “instant” 1987 disclosure if the requirements of section 112 are to be satisfied. If applicant knows such to be true, then it is not understood how applicant can then adopt the position that:

“the [examiner’s] assumption that ‘all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure’ is mistaken and wholly unsupported.”²⁵

[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

Namely, if all section 112-1 support for all of the claims’ limitations must necessarily come from the instant “1987” disclosure alone (e.g. in light that the disclosure of the 1981 parent was not formally incorporated into the instant 1987 disclosure), then how can a limitation of a claim be directed to (i.e. and obtain required section 112-1 support from) anything but that which is described within the said instant 1987 disclosure? Is applicant suggesting that the pending amended claims are **not** necessarily directed to, do **not** necessarily derive section 112-1 support from, and are **not**

²⁵ Contrary to applicant’s position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant specification. This is not to say that the resulting scope of the pending claim is limited only to that which it must necessarily be directed.

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necessarily claiming, subject matter that is found in the instant 1987 disclosure?

4) Applicant has alleged that "Teletext decoders" did not "locally generate" the images that they outputted/displayed. According to applicant, Teletext decoders only transferred, to their outputs, displayable image data that was received at their inputs. The examiner rejects such a notion. The following is noted:

a) That, as was exemplified via the discussion provided on page 5 of the appendix that was attached to a 1981 "PETITION FOR RULEMAKING" submitted to the FCC ²⁶, it was notoriously well known in the art that transmitted Teletext data *typically* comprised a "series of instructions" which instructed the Teletext decoders on how to "generate" the desired images which were to be outputted/displayed;

b) That conventional Teletext decoders *typically* comprised "character generators"; i.e. such "character generators" would not have been required had the received Teletext data actually comprised displayable image data as alleged by applicant; and

c) That transmitted Teletext data *typically* comprised of ASCII-type codes; i.e. wherein one of ordinary skill in the art would have understood the fact that these ASCII-type codes are not themselves displayable. Specifically, these ASCII-type codes only identified the way in which locally stored pixel patterns which were locally retrieved and locally assembled into image frames, e.g. via the "character generators", in order to locally generate the images that were outputted/displayed.

²⁶ SEE: APPENDIX E and APPENDIX F of the latest Office action in SN 470,571.

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Clearly, Teletext decoders operated to "*locally generate*" the images that they outputted and displayed! ²⁷

5) Applicant's 1987 inventions used a "SPAM" transmission packet structure to transmit ancillary information through the TV broadcast networks. By using the "SPAM" packet structure, a transmission scheme was established in which a piece of coherent "information", e.g. such as a complete "processor instruction", could be broken down into a plurality of "partial information" segments and communicated through the TV network within/as respective "discrete (packet) signals". On the receiver side of the 1987 inventions, the partial information from the plurality of discrete signals could be recovered and re-organized back into the original piece of coherent "information (e.g. re-organized back into the single complete processor instruction).

Applicant has alleged the above described "partial information" transmission scheme is a key feature which distinguishes applicant's alleged 1987 inventions over Teletext "prior art". Applicant's allegation is founded on a huge misunderstanding/misrepresentation of the Teletext "prior art". In fact, via such arguments, it appears that applicant is effectively trying to re-invent the foundation on which the Teletext "prior art" was actually built [e.g. see the arguments which begin at the top of page 354 and extend to the bottom of page 356 in the response filed on 1/28/02 in SN 08/470,571].

Specifically, standardized Teletext was based on the recognition that vacant lines occurring during the VBI of TV signal transmissions could be used to transmit/communicate embedded frames/"pages" of character/graphics information along with the TV programming. However,

²⁷ Character data was "always" transmitted in an encoded non-displayable format by "typical" Teletext transmission systems; e.g. the only exception to this "typical" configuration that the examiner is aware of is "typical" Chinese/Japanese ideograph Teletext systems being that there were simply too many Chinese/Japanese characters to encode efficiently. Graphics data, on the other hand, was "typically" encoded such that designated bits of each transmitted graphic code could be mapped by the decoder to regions of the display screen so as to generate the graphics image frame that was to be displayed. Yet, even here, a local graphics generator was still required to convert the graphics codes into displayable pixel data. Such a local graphics generator was conventionally implemented either with dedicated logic circuitry or with a "graphics generator" of the "character generator" variety [SEE: the discussion under the headings "Producing the display" and "Graphics" on page 398 of the article "CEEFAX/ORACLE: reception techniques (part I)" by Money in the 7/1975 issue of "TELEVISION"; and lines 13-21 in column 9 of US Patent #3,982,065].

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it was instantly recognized that each video line did not have sufficient bandwidth to carry an entire frame/page of the character/graphics data. Therefor, the prior art Teletext systems established Teletext packet structures by which "partial image/information" segments (e.g. such as single "rows" of character and control information) could be communicated via respective discrete packetized signals which were embedded within respective discrete television line intervals. On the receiver side of the Teletext "prior art", the partial information segments from the plurality of discrete packetized signals were recovered and re-organized back into the original frame/pages of character/graphics information in order to "locally generate" a Teletext image for display. But the clear correlation that exists between applicant's "SPAM" transmission scheme and prior art Teletext transmission schemes does not end here!

In addition to the transmission of character/graphic frames/pages, those of ordinary skill in the art quickly recognized that the prior art Teletext transmission schemes could be "extended" so as to carry other kinds of information; e.g. "Telesoftware"(i.e. computer programming), remote control signaling, etc,...

This additional information was carried using the same packetized Teletext structure previously established for the character/graphic image data. For example, Telesoftware was also broken down into "partial information" segments to be carried as "rows" of character-like data within respective Teletext packets of one or more Teletext pages (e.g. depending on the size of the Telesoftware program that was being communicated). On the receiver side, the "partial information" segments of the additional information were then recovered from the transmitted discrete packet signals and were re-organized back into its original form (e.g. the complete "Telesoftware" program was reconstructed from the discrete partial programming segments).

Given the above, it is still the examiner's position that applicant's 1987 packetized "SPAM" structure represents little more than applicant's own version of a conventional "extended" Teletext system [SEE part "A." under "Section XI" in the Office action mailed 8/27/01 in SN 08/470,571]. And again, for the reasons addressed above, the examiner continues to refute applicant's position that claim recitations directed to "discrete signals" and "partial information" contribute anything to avoiding applied Teletext "prior

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art”; i.e. applicant’s allegations to the contrary represent nothing but “straw men.”

6) Applicant points out that term “computer software/programming” has been defined as: “a series of instructions which controls the operation of a computer”. Stretching this definition, applicant erroneously suggests that the term “computer software” encompasses: “any series of instructions which controls the operation of a computer”. And finally, using this improperly stretched definition, applicant argues that each series of transmitted cuing-type codes which were described in his 1981 parent application *implicitly*²⁸ taught the transmission and/or downloading of “computer software” in view that each of these series of codes represented “instructions which controlled the operation of a computer”. Applicant’s argument is lame. For if one were to accept applicant’s argument, then in applicant’s new world:

- a) a computer mouse and computer keyboard suddenly become generators of “computer software” because they too generate series of instructions which are used to control the operation of a computer;
- b) Teletext data itself, when received by a CPU implemented decoder, suddenly becomes “computer software” because it too represents series of instructions which are used to instruct a computer as to how to generate an image for display;
- c) etc,...

Clearly, applicant’s argument twists the definition of “computer software” in a way that is repugnant to its conventional use/meaning in order to obtain a 1981 effective filing date for something that he did not have in his

²⁸ Applicant is reminded that what might be “implied” by the 1981 disclosure is irrelevant to section 112-1 support issues. Section 112 support for a claimed feature is only provided if the claimed feature was actually disclosed; i.e. the feature must at least be “inherent” in the disclosure (not simply “implicit”).

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possession, and/or did not disclose, until 1987; e.g. namely, the downloading of computer software.²⁹
[note: parts "15)" and "16)" of this section too]

7) While applicant has alleged that his "computer software/programming" recitations should be stretched so as to retroactively find support from things which were not "computer software/programming"³⁰ (i.e. a series of cuing-type codes/signals from his 1981 disclosure), applicant also takes the opposite approach by alleging that circuit structures which operated to process signals (i.e. specifically Teletext decoders) are not encompassed by the "signal processor" recitations of his pending amended claims.³¹ The examiner disagrees. The examiner points out that not only are Teletext decoders "signal processors" in any conventional sense of such terminology, but that Teletext decoders are in fact "signal processors" specifically within the context of applicant's own alleged invention. More to the point, the Teletext decoders of the applied prior art are like "SPAM" decoders of applicant's alleged inventions in that both decoders operated to extract and process packets of encoded information distributed to them, at least "*preferably*", via the VBI of broadcasted and/or cable casted TV programming; i.e. wherein the packets of encoded information comprised Teletext data packets in the case of prior art Teletext decoders and comprised SPAM data packets in the case of the SPAM decoders of

²⁹ In the supplemental response filed 5/06/2002 in 08/470,571, applicant now submits a different version of essentially the same argument [see part "P)" in "SECTION I" of the latest Office action in 08/470,571].

³⁰ This erroneous *reading* has been used in order to erroneously allege a 1981 "priority" date for current claim recitations which are directed to the 1987 "computer software/programming" features of the instant 1987 CIP specification.

³¹ This erroneous *reading* has been used to try to distinguish which is now claimed over applied "prior art" of record.

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applicants alleged invention.³² Being such, applicant's allegation that conventional Teletext decoders should somehow be excluded by the "signal processor" recitations of his pending claims seems to fall under the heading of: "NONSENSE."³³

8) The examiner maintains that applicant's own "SPAM" transmission system, at least as described in the context of television distribution, constitutes little more than applicant's own version of an "extended Teletext system"³⁴. However, when Teletext "prior art" has been applied against applicant's claims, applicant has become hostile to the suggestion that there is any correlation between his "SPAM" transmission system and conventional Teletext transmission systems.³⁵ Yet, on the other hand, applicant appears to openly believe that the scope of many of his pending amended claims encompasses the "WEATHER STAR" system/receiver technology which, to the extent understood by the examiner, is in fact a

³² In fact, for reasons which will be addressed in more detail below, the examiner maintains that the "SPAM" data packets of applicant's alleged invention represent, for all intents and purposes, little more than applicant's own version of a Teletext system in which the function of its Teletext data packets have been "extended" so as to carry more than just the normal displayable character/graphics code (e.g. "extended" to carry control signals, Telesoftware, etc,...).

³³ NOTE:

1) that *typical* Teletext decoders sequentially performed steps of signal slicing/separation, serial-to-parallel conversion, signal storage, ASCII code to pixel data translation, etc... all which were recognized as having comprised steps of "signal processing" [the last 16 lines on page 5 of the appendix that is attached to the "PETITION FOR RULEMAKING" which was filed with the FCC on 3/26/1981 by the "United Kingdom Teletext Industry Group" which explicitly indicates Teletext decoders as having performed "signal processing"]; and
2) that such processing was even true in the unusual "ideograph" decoders of applicant's argument [i.e. see the block labeled "Teletext signal processor" in figure 10 of the NHK article "A Teletext System for Ideographs" by Numaguchi et al.].

³⁴ The term "extended Teletext" is being used here to refer to Teletext systems which have been "extended" so as to carry other types of information beyond the normal/typical coded Teletext character/graphic information. One alleged novel feature of applicant's SPAM packets was its ability to carry and distribute computer software. However, contrary to applicant's allegation, packets of "extended Teletext" systems had long been used to carry and distribute computer software too. In fact, the term "Telesoftware" had been specifically coined so as to refer to the "software" that was carried by "extended Teletext systems. The point being, that SPAM and Teletext data packets are equivalent right down to there recognized ability to carry other forms of information including "Telesoftware".

³⁵ Yet a large portion, if not the majority, of the "prior art" cited by applicant pertains to Teletext.

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Teletext based technology.³⁶ If applicant's claimed/disclosed "SPAM" systems/receivers encompass Teletext based systems/receivers such as the "WEATHER STAR" system/receiver technology, then how in the world can applicant possibly suggest that "SPAM" and Teletext are not correlated/analogous technologies/arts with respect to the applied prior art? Clearly there is a conflict between the two positions.

9) Applicant and applicant's originally filed 1987 disclosure both seem to have alleged that "digital television signals/programming", of the type that is recited in many of applicant's pending amended claims, was notoriously well known in the art at the time of his alleged invention. The examiner has challenged applicant's apparent allegations and has requested that applicant submit "prior art" to show such to be true. In response to the examiner's requests, applicant has submitted U.S. Patent #3,906,480 to Schwartz et al. as having evidenced the conventional "digital television signal" technology on which his disclosure and amended claims were/are allegedly based [note the last 11 lines on page 97 and lines 3-6 on page 98 of the amendment filed on 6/7/2000 in SN 08/470,571]. The examiner continues to be mystified by this submission. The examiner points out that the cited Schwartz et al. patent describes a computer display system in which a computer was used to generate, albeit digitally, *frames* of vector encoded graphic/character information which were then transferred, via a data bus, to "digital TV monitors" for display thereon. As far as the examiner can tell, the Schwartz et al. disclosure has absolutely nothing to do with the transmission of "digitized TV signals/programming" in any conventional sense of such terminology. Simply trying to figure out how the Schwartz et al. patent might be related to anything that was originally disclosed by applicant in his 1987 disclosure, much less trying to figure out how it could have been used to enable that which was originally disclosed

³⁶ SEE: the article "Landmark forms cable weather news network" which was cited by applicant [see appendix VIII attached hereto]

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by applicant in his 1987 disclosure, represents an insurmountable invitation to experimentation unto itself. If Schwartz et al. has been cited by applicant out of carelessness, then its submission to the Office for required review and consideration represents nothing less than an unnecessary drain on already limited PTO resources. If, on the other hand, Schwartz et al. was cited out of necessity (e.g. if it actually represents the best showing of his "digital television" recitation that applicant is/was aware of), then its very presence in the record only goes to support the examiner's position that which is now claimed by applicant, i.e. via the subsequently introduced "digital television" recitations, is not supported and/or enabled by applicant's originally filed 1987 disclosure.

10) Applicant has made many attempts to have the Zaboklicki reference [DE 2,914,981] removed from consideration. In many responses [e.g. the communication filed 7/13/2000 in 08/470,571], applicant has argued that the applied Zaboklicki reference should be removed from consideration simply because the teachings and descriptions provided by this applied prior art reference differ from teachings and descriptions provided by other non-applied members of its patent family (namely, GB #2,016,874). Such a position is absurd. If Zaboklicki DE 2,914,981 teaches that which applicant now claimed, then the fact that Zaboklicki GB #2,016,874 might not have provided these same teachings (even if true) is irrelevant to the fact that the claims ARE unpatentable over Zaboklicki DE 2,914,981. ³⁷

³⁷ It is important to note that Zaboklicki [DE 2,914,981] included an extensive "List of References" section which described the operation of the Zaboklicki system element-by-element. This section was absent from Zaboklicki [GB 2,016,874]. This additional description in Zaboklicki [DE 2,914,981] is not trivial in that it goes a long way to understanding the invention which was disclosed in the *applied* Zaboklicki prior art, e.g. namely DE 2,914,981 (not GB 2,016,874).

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11) Within the originally filed abstract of applicant's 1981 past parent specification (i.e. note S.N. 06/317,510), the term "*programming*" was explicitly defined to mean:

"everything transmitted over television or radio intended for communication of entertainment or to instruct or inform".

[see lines 4-7 in the abstract of US patent #4,694,490]

Today this definition is in conflict with applicant's present needs (e.g. it too refutes applicant's claim to the earlier 1981 priority date ³⁸). Being such, applicant has argued that this explicitly stated definition should be ignored and given no weight because the "abstract", as applicant alleges, was not *technically* part of his 1981 written description. The examiner rejects this allegation too. The examiner points out: that the originally filed abstract was certainly part of the originally filed disclosure of applicant's 1981 parent application on which all issues must be considered/based and that the definition of "programming" that was provided by this originally filed abstract is completely consistent with the way that it was used throughout the 1981 disclosure.

12) Applicant seems willing to acknowledge that the "1987 inventions" that are described in the instant 1987 CIP specification are in at least in some ways *enhanced and improved* versions of the 1981 inventions that were described in applicant's past 1981 parent specification.

"In fact, both [the 1981 and 1987] specifications describe the inventions disclosed in the 1981 specification, although the 1987 specification contains many enhancements and improvements."

[see the last two lines on page 9 of applicant's supplemental response filed 5/6/02 in SN 08/470,571]

³⁸ The examiner notes that applicant is only entitled to the 1981 priority date for "common subject matter", i.e. the "same" subject matter that is commonly found in both the present 1987 and the 1981 parent disclosures as originally filed. However, the term "programming" itself does not represent "common subject matter" required for priority because the definition given to it within the present 1987 disclosure is vastly different than the definition given to it via the 1981 parent. Specifically, whenever the "programming" terminology is used in a currently pending claim, section 112-1 demands that it be held to the definition that is explicitly provided via the present 1987 disclosure. This 1987 definition is not entitled to the 1981 priority date in view that the 1981 disclosure explicitly gave the same terminology a different meaning.

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One of the “enhancements and improvements” that was effected via the subsequent filing of instant 1987 CIP specification was a change made to the definition of the word “programming.” Whereas the past 1981 Parent specification defined the terminology as referring to Television and Radio transmissions, the instant 1987 specification “improved and enhanced” the 1981 definition of “programming” to explicitly cover “all forms of electronic transmission” now explicitly including “computer programming”, “broadcast print”, etc,... (e.g. additions to the radio/TV transmission of the past 1981 definition).

“everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform”;

[“programming” as defined in the past 1981 Parent specification]

“everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, computer programming, as well as combined medium programming”.

[“programming” as defined in the instant 1987 CIP specification]

Thus, whereas a potential infringer might have reasonably argued that any claim which derives its required section 112-1 support from the past 1981 specification cannot be fairly read on subject matter outside the Television and Radio transmission arts given the 1981 definition of “programming” (e.g. that these claims cannot be fairly read on computer software/programming transmissions), the wiggle room for such arguments has been effectively eliminated when the identically worded claims derive their required section 112-1 support from the instant 1987 CIP specification instead; i.e. being that the 1987 specification replaces the 1981 definition of “programming” with the new “improved and enhanced” 1987 definition of “programming” which has been expanded to explicitly covers “all forms of

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electronic transmission" including, i.e. explicitly, said "computer programming" transmissions.³⁹ Thus, the examiner asks:

Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using the new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and yet still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?
(The short answer to this question is: NOT!)

The point being that applicant had every right to draft a claim based on his past 1981 parent specification which contained the 1981 definition of "programming", and to have taken the position that a fair reading of the 1981 "programming" terminology, e.g. in the context of said past 1981 parent specification, encompassed "computer programming" transmission too; i.e. wherein such an "argument" would have been necessary in view that the 1981 definition of "programming" did not include "computer programming". Instead, applicant elected to draft a new CIP specification which modified the definition of "programming" to explicitly include "computer programming" thereby eliminating any question that the fair reading of "programming", in the context of the new 1987 CIP, now encompasses "computer programming". Again, the examiner asks:

³⁹ The examiner maintains that the differences in the respective 1981 and 1987 definitions of "programming":

1) represent real differences in the respective "properties" of the different kinds of "signaling" that made up the respective 1987 and 1981 subject matter; and

2) are not simply different statements of "*disclosed utilities*" as applicant might try to allege in the future.

(e.g. once again, the 1987 SPAM-type signaling subject matter that is necessarily being claimed by the pending claims is explicitly inclusive of "computer software/programming" whereas the 1981 signaling subject matter was not).

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Why should any applicant be allowed to improve/enhance/redefine the subject matter that is being recited by a given claim using new subject matter that was added via a subsequently filed CIP specification, e.g. in order to tighten the noose on existing potential infringers and/or to cast a wider net to ensnare new potential infringers, and still be entitled to the earlier filing date of a past un-incorporated 1981 Parent specification that did not contain this improved/enhanced/redefined subject matter?

(E.G. Why does applicant believe that his new 1987 definition of "programming" should be entitled to the 1981 filing date of the old 1981 "programming" definition which it replaced?; Why should applicant's "1987 inventions", which have been re-defined by the new 1987 definition of "programming", be entitled to the 1981 filing date of "past 1981 inventions" which were defined by the past 1981 definition of "programming?"; etc,...)

13) In order to try to overcome applied prior art of record, applicant has willfully and repeatedly alleged that the Radio and Television broadcast arts represent non-analogous arts. This position is absurd and wholly unsupportable too. The examiner points out that the Television broadcast art actually evolved from the radio broadcast art because the original radio broadcast networks represented existing entities who had the program distribution resources and expertise that was easily extended and applied to TV programming; e.g. NBC, CBS, ABC all began as Radio distribution networks which evolved, quite "naturally", into Television broadcast networks too [NOTE: the last 5 lines of the first paragraph of the first column on page 811 of the article "Versatile Transmission Video Facilities at NBC New York" by Mausler which states that: "the origins of television broadcasting practice may be found in radio" (a copy of which was provided within SN 08/470,571)]. In fact, the most significant difference (i.e. if not the only "real" difference) between Radio and Television distribution networks is the difference in bandwidth of the equipment that is required to handle Radio and Television program distributions. Thus, for

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example, when Hetrich [Australian #74,619] stated that his disclosed "Netcue" system was applicable to either "a network of radio or television stations", one of ordinary skill in the art would have recognized that this teaching was in fact founded on the underlying understanding that Radio and Television network were in fact analogous arts. Applicant's allegations to the contrary is based on a unrealistically low level of skill in the art.

14) Throughout the prosecution of their patent portfolio, applicant has alleged that the "*simultaneous or sequential presentation*" recitation, as found in many of their pending claims, represents a "key limitation" in overcoming and/or avoiding "prior art" of record [note: lines 2-6 on page 17 of Appendix A in the response filed on 3/19/2001 in SN 08/469,078; and part "4)" under "Section VII" of the Office action mailed 8/27/01 in SN 08/470,571]. The examiner strongly disagrees. Specifically, the examiner points out that the alternative expressions "*simultaneous or sequential*" or "*one of a simultaneous and sequential*" simply encompasses ANY AND ALL of the ways by which two types of information could ever be presented to a given audience. Specifically, any time two types of information are presented to a given audience, they must necessarily be presented to that audience either *simultaneously or sequentially* in time. The phrase "*simultaneous or sequential*" simply covers ALL of the possibilities! Thus, if one can show that a given piece of "prior art" operated to present two types of information to a given audience, then one has in fact inherently shown that the prior art meets the "*simultaneous or sequential presentation*" limitation of applicant's claims; i.e. again, the recitation "*simultaneous or sequential*" simply covers ALL of the way that two types of data could ever be displayed to a single audience!

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15) Applicant has alleged that his past 1981 Parent specification “implicitly” taught the downloading of “computer programming” (i.e. computer software).⁴⁰

“To the contrary, the 1981 definition [of “programming”] implicitly includes, and the 1987 definition [of “programming”] explicitly includes, computer programming in the definition”.

In an attempt to create support for this erroneous allegation, applicant tries to weave together a tapestry of “engineered” teachings and definitions:

A) Applicant falsely asserts that the past 1981 Parent specification literally used the term “programming” to refer to the “instruction signals” that were communicated through the TV/RADIO networks of its disclosed “1981 inventions”;

B) Applicant notes that the “instruction signals” of the past 1981 specification were described as comprising signals which instructed *preprogrammed* microcomputers to perform given tasks.

C) Applicant cites an outside *Dictionary* definition of the term “program” to show that the term “program” was conventionally used to refer to “computer programming/software”; and

D) Finally, applicant argues that when one combines the above “engineered” teachings from his past 1981 Parent specification together, based on the cited *Dictionary* definition of “program”, one “implicitly” arrives at the cited *Dictionary* definition of “program.”

However, for a variety of reasons, the tapestry which applicant attempts to weave falls apart at the slightest touch:

⁴⁰ Again, what might be “implied” by the 1981 disclosure is irrelevant to section 112-1 support issues. Section 112 support for a claimed feature is only provided if the claimed feature was actually disclosed; i.e. the feature must at least be “inherent” in the disclosure (not simply “implicit”).

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A) When one actually looks at the way in which the 1981 “programming” terminology was coined and used throughout applicant’s past 1981 Parent specification, i.e. the context in which it actually appears, one finds that the 1981 “programming” terminology unquestionably referred to signaling which represented scheduled TV/Radio shows (and not to “computer software” as applicant now wishfully alleges). In this regard, one finds that applicant’s past 1981 Parent specification distinctly distinguished the 1981 “instruct signals” from the 1981 “programming” into which said 1981 “instruct signals” were embedded. Specifically, the past 1981 parent specification leaves absolutely no doubt that said 1981 “instruct and information signals” constituted ancillary/auxiliary signaling that was “associated” with, and embedded within, respective TV/Radio “programming”:

“One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the operation of a television studio automatically through the use of instructions and information signals embedded in programming either supplied from a remote source or sources or prerecorded” (emphasis added)

[lines 32-37 of column 3]⁴¹

“Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programming and pass them, along with information identifying the channel source of each signal, externally to code reader, 72.” (emphasis added)

[lines 3-7 of column 11]

“The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct to remove signals from the programming as required, and signal generators, 82, 86, and 90, also known in the art, that

⁴¹ Citations have been obtained from US Patent #4,694,490.

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controller/computer, 73, can instruct to add signals to programming as required"

[lines 36-42 of column 12]

"One particular advantage of these methods for monitoring programming is that, by locating the identifier signals in the audio and/or video and/or other parts of the programing that are conventionally recorded by, for example, conventional video recorders, ..."

[lines 25-29 of column 16]

"Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment"
(emphasis added)

[Lines 34-38 of column 17]

"Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions"
(emphasis added)

[lines 39-41 of column 17]

"Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays..."
(emphasis added)

[lines 42-49 of column 19]

"At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission"
(emphasis added)

[lines 60-63 of column 19]

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Given the above, it still seems ridiculous for applicant to suggest that the term “programming”, e.g. in the context of the past 1981 specification, referred to “computer software” (or even that it referred to applicant’s 1981 “instruct and information signals”).

B) It is also quite clear from applicant’s 1981 past parent specification that the “microcomputers” on the receiver side of the disclosed 1981 inventions were “**preprogrammed**” with the “computer programming/software” which told them *how to respond* to detected “instruct signals” that were embedded within received TV/Radio “programming.” More specifically, it seems quite apparent that each of the 1981 “instruct signals” of applicant’s 1981 inventions represented typical cuing-type signals/commands which instructed/triggered “preprogrammed” microcomputers to execute respective portions of preprogrammed software in order to perform predefined task/operation (e.g. the 1981 “instruct signals” told the 1981 microcomputers “to generate the overlay” whereas the pre-loaded 1981 computer programming/software told said 1981 microcomputers “how to generate the overlay that was to be generated”).⁴²

“Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the “Wall Street Week” programing transmission....These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays...”
(emphasis added)

[lines 42-49 of column 19]

Clearly, contrary to applicant’s erroneous allegations, there is no teaching in applicant’s past 1981 specification indicates that applicant’s 1981 “instruct signals” represented “computer

⁴² This being even more apparent when one reads the teaching of applicant’s past 1981 Parent specification in light of the “enhanced and improved” teachings of applicant’s 1987 CIP specification (i.e. a 1987 specification in which cuing-type signaling was enhanced/improved by the added ability of the 1987 systems to re-program downstream devices via downloaded computer software).

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software/programming” in any conventional sense of such terminology.

C) The past 1981 parent specification does not offer/provide a signaling mechanism and/or structure which would have been capable of handling the large continuous sequence of data bytes required to push “computer software” through TV and/or Radio networks. Such a signaling mechanism and structure was not provided until “SPAM” packeting was introduced via applicant’s subsequently filed instant 1987 CIP specification. Thus, applicant’s past 1981 parent specification was not enabling of the alleged “computer programming/software” feature (i.e. the alleged “computer programming/software” feature that the past 1981 specification did not even describe/disclose).

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16) On page 150 of the amendment filed 1/28/2002 in 08/470,571, applicant states:

“The 1981 specification states:

It is the object of this invention to unlock this potential by the development of means and methods which permit programming to communicate with equipment that is external to television receivers and radio receivers, particularly computers and computer peripherals such as printers

1981 Spec., Col. 1, ll.36-41

Thus applicants’ 1981 specification makes it clear that ‘programming’ is not just TV and Radio shows- it can also include instructions, codes, and signals that are communicated to and control e.g., computers and computer peripherals. These instructions, codes, and signals clearly fall within the definition of programming and to find otherwise is to conveniently and purposefully overlook the entire purpose of the invention.” (emphasis added)

The examiner disagrees with applicant’s analysis as to the meaning of the cited excerpt. In reading the 1981 Specification, it seems that “**the entire purpose**”⁴³ to which applicant alludes was the ability to provide multimedia presentations in which TV or Radio “programming” was be displayed along with another supplemental media presentation; wherein the content of the supplemental media presentation was related to the content TV and Radio “programming” thereby *enhancing* the content of the displayed TV and Radio “programming”. To achieve this goal, ancillary “instruct signals” and/or other ancillary “information signals” were “associated” with, and “embedded” within, the TV or Radio “programming.”

⁴³ The examiner notes that applicant’s 1981 inventions appear to serve many purposes. Therefor, the examiner does not believe that “the invention” of applicant’s 1981 specification has one “entire purpose” as is now alleged by applicant; i.e. if it does have one “entire purpose”, then it is not clear to the examiner what that “entire purpose” actually is.

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These embedded "instruct and information signals" allowed received TV and Radio *programming* "to communicate" with equipment that was external to the TV and Radio receivers in order to produce the supplemental media presentation. Specifically, the associated "instruct and information signals", which were embedded within the received Radio or TV "programming", were themselves transferred to the external equipment thereby causing the external equipment to produce said supplemental media presentations. Being such, it is still crystal clear to the examiner that the 1981 "programming" terminology was used in a conventional sense by the 1981 specification so as to refer to TV and Radio signaling which represented scheduled TV and Radio shows. To suggest otherwise is to conveniently and purposefully ignore the fact that applicant's 1981 specification clearly distinguished the associated "instruct and information signals" as being separate/distinct entities with respect to the "programming" (i.e. the radio/TV shows) into which these associated "instruct and information signals" were embedded:

"One method provides a technique whereby a broadcast or cablecast transmission facility can duplicate the operation of a television studio automatically through the use of **instructions and information signals embedded in programming** either supplied from a remote source or sources or prerecorded" (emphasis added)
[lines 32-37 of column 3]⁴⁴

"Signal processor, 71, has means, described above, **to identify and separate the instruction and information signals from their associated programming** and pass them, along with information identifying the channel source of each signal, externally to code reader, 72." (emphasis added)
[lines 3-7 of column 11]

"The cable head end facility contains signal strippers, 81, 85, and 89, of which models exist well known in the art, that controller/computer, 73, can instruct **to remove signals from the programming** as required, and signal generators, 82, 86, and 90, also known in the art, that controller/computer, 73, can instruct **to add signals to programming as required**" (emphasis added)
[lines 36-42 of column 12]

"One particular advantage of these methods for monitoring programming is that, by locating the **identifier signals in the audio and/or video and/or other parts of the programming** that are conventionally recorded by, for example, conventional video recorders, ..." (emphasis added)
[lines 25-29 of column 16]

⁴⁴ Citations have been obtained from US Patent #4,694,490.

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"Methods for Governing or Influencing the Operation of Equipment that is External to Conventional Television and Radio Sets by Passing Instructions and Information Signal that are Embedded in Television and Radio Programing Transmissions to Such External Equipment" (emphasis added)
[Lines 34-38 of column 17]

"Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions" (emphasis added)
[lines 39-41 of column 17]

"Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.... These [embedded instruction] signals instruct microcomputer, 205, to generate several video graphic overlays..." (emphasis added)
[lines 42-49 of column 19]

"At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission" (emphasis added)
[lines 60-63 of column 19]

17) Applicant clearly failed to carry his original 1981 disclosure forward into the instant 1987 disclosure ⁴⁵. Because of this, applicant has forfeited his right to now claim any subject matter that was set forth in the disclosure of his originally filed 1981 parent application, but was not carried forward into the disclosure of his originally filed 1987 parent application ⁴⁶. Thus, APPLICANT IS CLEARLY WRONG when he alleges that he can secure a 1981 priority date for that which is now claimed by showing "possession" of that which is now claimed via the original disclosure of his 1981 parent application (i.e. NOT for the subject matter that was left behind!). Specifically, not only must applicant show that he possessed the subject

⁴⁵ The examiner notes that applicant failed to incorporate the original disclosure from his 1981 parent application into the original disclosure of his 1987 parent; i.e. the 1981 disclosure was neither formally copied into the 1987 disclosure nor was the 1981 disclosure "incorporated by reference" into the 1987 disclosure. The original 1987 disclosure simply replaced the 1981 disclosure as "THE INSTANT DISCLOSURE" from which all section 112 issues must be analyzed.

⁴⁶ As evidenced by testimony given in ITC investigation #337-TA-392, even applicant and/or his counsel seemed unsure as to exactly what subject matter from applicant's 1981 parent ("if any") made it into applicant's 1987 disclosure.

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matter that is now claimed with respect to the original 1981 disclosure but, more importantly ⁴⁷, applicant must first show possession of the same claimed subject matter with respect to the instant 1987 disclosure. Stated another way, to secure priority, applicant must be able to show that he did not forfeit his right to claim the subject matter possessed in his originally filed 1981 parent application by showing, *independently* ⁴⁸, that he possessed this same subject matter via the originally filed disclosure of his present application too (i.e. with 1987 disclosure).

18) Applicant is only entitled to claim subject matter which was set forth within the originally filed 1987 disclosure of his present application in accordance with ALL of the requirements of section 112-1. Specifically, the examiner refutes applicant's allegations that the original disclosure of his 1981 parent application can be used in place of the instant 1987 disclosure to meet one or more of the section 112-1 requirements (namely, to establish "possession" of that which is now claimed). It is only after proper section 112 support (i.e. including "possession") has first been established for the pending claims from the disclosure of the present application (the 1987 disclosure), that there is even a need to consider applicant's 1981 parent application at all. Simply put, if the pending claims are not supported under section 112-1 by applicant's present disclosure as originally filed, then the pending claims themselves fail to comply with the

⁴⁷ "More important" in the sense that applicant is prohibited from now claiming anything that is not fully supported in accordance with all of the requirements of section 112-1 by the present disclosure (e.g. the disclosure that was originally filed by applicant in 1987). Specifically, the present claims fall under section 112-1 if they are not fully supported by the present 1987 disclosure even if they were, by some remote chance, fully supported by the disclosure of the earlier 1981 parent.

⁴⁸ If applicant had formally/properly incorporated the written description from his 1981 parent application into his originally filed 1987 disclosure, then there would be no need for these "independent" showings; i.e. applicant could have established "possession" via the originally filed disclosure of his 1981 application alone. It is only because applicant failed to formally/properly incorporate the written description from his 1981 parent into his originally filed 1987 disclosure, that such "independent" showings of "possession" are needed; i.e. because the actions taken by applicant have in fact caused the forfeiture of his right to now claim that subject matter from his 1981 disclosure which was not carried forward into the 1987 application.

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requirements of section 112-1 and no further questions need be asked⁴⁹. Again, because applicant failed to formally/properly incorporate his 1981 disclosure into his 1987 disclosure, applicant is prohibited from relying on his 1981 disclosure to supplement his present 1987 disclosure (i.e. at least as far as complying with the requirements of section 112-1 is concerned). Stated another way, because applicant's 1981 parent application was never formally incorporated into applicant's present 1987 disclosure, it does not constitute part of applicant's 1987 disclosure, i.e. the *instant disclosure*, from which all section 112-1 support for the currently pending amended claims must be derived.

19) As was noted above, applicant does not believe that "common subject matter" is a requirement for priority under section 120.

***"[Section] 120 does not require an applicant to demonstrate that the disclosures relied upon under §120 have anything in common besides their ability to separately comply with §112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner's focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do is satisfy §120 is show that each disclosure meets the requirements of §112-1 for a given claim."* (emphasis added)**

[Page 141 of applicant's response filed on 1/28/2002 in application S.N. 08/470,571]

"Accordingly, the law requires a two part test in which the applicant separately demonstrates § 112 support for each application. In the FOA, the examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of 'common subject matter.'"

[see the last 10 lines on page 137 of the response filed on 1/28/2002 in SN 08/470,571].

⁴⁹ At least with respect to the issue of "adequate written description".

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Being such, applicant does not even pretend that the subject matter that is now being claimed in his many applications represents "common subject matter" between the instant 1987 CIP specification and the past 1981 parent specification. Instead, applicant is happy to allege the benefit of section 120 priority for that which is claimed based only on alleged "correlated subject matter" between his 1987 and 1981 specifications; e.g.

NOTE:

- a) That Appendix C of applicant's response filed 6/7/2000 sets forth alleged "correlations" between respective 1981 and 1987 disclosures; and
- b) That the claim by claim showing of alleged 1981 and 1987 section 112 claim support in Appendix A of applicant's response filed 6/7/2000 seem to regurgitate many of the alleged "correlations".

The examiner, on the other hand, believes that "common subject matter" is in fact a requirement of section 120. Thus, the examiner maintains that applicant's allegations pertaining to the existence of "correlated subject matter" are irrelevant to the issue of section 120 priority because "common subject matter", not "correlated subject matter", is required under section 120.⁵⁰

An extreme example of just how far applicant has been willing to distort section 120 in an effort to obtain the 1981 priority date for ones of the pending amended claims can be found in the claim chart for claim 123 within APPENDIX A of applicant's response filed 6/7/2000 in SN 08/470,571. In this claim chart, applicant alleges that the recitations of claim 123 find section 112-1 support via the "Super Discount Supermarkets" embodiment of the instant 1987 disclosure while alleging that this claimed 1987 "Super Discount Supermarkets" embodiment is entitled to the 1981 filing date of the parent application based on the 1981 "Wall Street Week" embodiment. The examiner disagrees. Specifically, the examiner maintains that the 1987 "Super Discount Supermarkets" embodiment and the 1981 "Wall Street Week" embodiment do not

⁵⁰ See part "A)" of "SECTION I".

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constitute "common subject matter" and therefore the claimed 1987 "Super Discount Supermarkets" embodiment is not entitled to the 1981 filing date of the 1981 "Wall Street Week" embodiment as alleged.

20) In lines 3-7 on page 11 of the supplemental response filed 5/06/2002 in SN 08/470,571, applicant states:

"the starting point for determining whether an applicant is entitled to priority under section 120 is what is being claimed. Without identifying precisely what is being claimed, it is impossible to seriously undertake an analysis of whether sufficient support exists in both applications thus entitling applicants to a 1981 priority date". ⁵¹

The examiner was a bit surprised that applicant raised this issue after all of the section 112-1 requests which have been made by the Office throughout the present prosecution in hopes of getting applicant's clarification as to *precisely what it is* that applicant claims. In fact, the Office continues to struggle in its efforts to make such determinations for the 10,000 or so pending amended claims. In the past, when applicant has been asked to identify "*precisely what is being claimed*", applicant has declined ⁵² to provide such showings instead opting to take the positions:

A) That it is the examiner's job, not applicant's, to read and understand the 557 pages of applicant's current 1987 CIP specification in order to determine "precisely what it is being claimed" via applicant's 10,000 or so pending claims; and

⁵¹ The examiner agrees with applicant's position noting that, without being able to identify precisely what it is that is being claimed, it is impossible to seriously undertake many other examining related activities too .

⁵² A notable exception being the most helpful claim charts of alleged "dual" section 112 support which applicant has, only on a few occasions, been willing to kindly provide [e.g. APPENDIX A in the amendment filed 6/7/2000 in 08/470,571].

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B) That at least some of the limitations of applicant's 10,000 or so pending claims are actually directed to subject matter that is not described within in the instant 1987 CIP specification.

"the [examiner's] assumption that 'all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure' is mistaken and wholly unsupported."⁵³

[lines 8-10 on page 144 of the amendment filed in 08/470,571 on 1/28/2002].

Hence applicant does not wish to cite, or indeed is unable to cite, section 112-1 support from the instant CIP disclosure for these limitations [e.g. often times out of an expressed fear that a court, at some later date, might actually hold the scope/meaning of these limitations as being directed to subject matter that was actually disclosed within the instant 1987 CIP specification].

In regard to the section 112-1 issue that has now been raised by applicant, the following positions continue to be taken by the present examiner:

A) It has always been a desire of the Office to determine "precisely what it is" that applicant now claims. Being that it still remains so unclear as to "precisely what it is" that applicant now claims, clarification on the part of applicant is once again formally requested for the 10,000 or so pending claims. For the record, the current examiner has found applicant's claim charts of alleged "dual" section 112-1 support to be the most helpful form of aid that applicant has provided to date because it at least attempts to match each claimed limitation to the specific teachings in the specification(s) that they are allegedly directed;⁵⁴ and

⁵³ Contrary to applicant's position, the examiner maintains that a pending claim must necessarily be directed to that which is described in the instant 1987 specification. This is not to say that the resulting scope of the pending claim is limited only to that of the 1987 specification to which it must necessarily be directed.

⁵⁴ The process of showing a limitation-to-disclosure match for each limitation of each claim should be an easy task for applicant, if not a trivial one, being that the currently pending claims must be "*clearly anticipated*" by the teachings of applicant's instant disclosure.

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B) The examiner continues to adopt the positions expressed by Judge Luckern at the ITC:

1) “that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] is difficult to understand, as it is dealing with many possible systems”;

2) “that despite complainant’s [i.e. the current applicant’s] attempts to point to the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] as illustrative of some claim elements, said specification has not been helpful in connecting individual claim language to distinct statements in the specification of the ‘277 patent that is supposed to provide an explanation of the claimed systems in issue”;

3) “that complainant’s [i.e. the current applicant’s] assertions in many instances of where support in the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] can be found for claimed elements ‘reads like the directions to a treasure hunt. There’s a piece here, there’s a piece there, it’s in there somewhere.’”; and

4) “ that the specification of the ‘277 patent [the 557 pages of the instant 1987 specification] and the claims in issue ‘are like ships passing in the night in the same ocean, but not necessarily sailing in the same direction.’”
[SEE: 1997 ITC Lexis 307, *258 (part I of II)]

Once again, the examiner hereby requests applicant’s help in determining “precisely what it is” that applicant now claims.

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21) The examiner notes that the "SPAM" technology, on which the "more sophisticated" systems of applicant's present 1987 disclosure are based, is vastly different from the "cuing-type signal" technology on which the "primitive" systems of applicant's 1981 parent application were based; e.g. the ability of SPAM to carry and distribute "software" being but just one of the more notable differences. Clearly, the "more sophisticated" 1987 alleged inventions that are now *necessarily being claimed* are not entitled to the 1981 filing date of their 1981 "primitive" ancestors; i.e. applicant is not allowed to transport his "more sophisticated" 1987 alleged inventions back in time to the 1981 filing date of his different, albeit sometimes "correlated", "primitive" 1981 alleged inventions.

22) The issues cited above illustrate a further dilemma that the examiners have faced when trying to read and understand that which is now being claimed by applicant. Specifically, terminology which might seem definite when one looks to the instant 1987 disclosure alone, becomes confusing and indefinite when read in light of applicant's responses; responses in which applicant has applied newer 1987 interpretations/definitions to the claims in order to establish section 112-1 support and has applied older and different 1981 interpretations/definitions to the same claims in order to obtain the 1981 priority date for the recitations (this approach is evident throughout appendix A of applicant's last response). Thus, at times, it seems to be the record itself that has, or that has at least contributed to, making the meaning and scope of the claims' recitations so unclear. It must also be noted that the claim recitations themselves are often contorted in the attempt to craft them to read independently on different teachings from the two disclosures⁵⁵. Not only does this process results

⁵⁵ For example, applicant's claims now recite "downloadable processor instructions" which has no antecedent basis in either of the originally filed 1987 and 1981 disclosures. Yet it appears that this recitation could, quite properly, be read on the originally described "program instruction sets" (e.g. downloaded software) of applicant's instant 1987 disclosure. However, when one looks at appendix A of applicant's last response, one finds that applicant has attempted to read the recitation not on the originally described "program instruction sets" of the instant disclosure, but instead on respective (and different) commands/instructions from the 1981 and 1987 disclosures both of which functioned only to trigger actions/operations on the receiver side. Applicant resorts to this interpretation apparently out of recognition that the "program instruction sets"/software of the instant 1987 disclosure has no equivalent in the 1981 disclosure. What results from this process is a claim which looks like it is literally directed to the downloading of software that was described only in the 1987 disclosure, and yet has been afforded the 1981 effective filing of a parent application in which such a feature was not disclosed (i.e. effectively transporting the 1987 "downloading of software" feature back in time to the

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in claim limitations that are difficult to read in that they do not quite fit teachings from either disclosure, but more importantly, the effort involved in this process is wasted effort because the subject matter being claimed/referenced in the two disclosures is not "common subject matter"; e.g. the claims are not entitled to the 1981 filing date even if it could be shown that they can be read on respective (but different) subject matter from the two disclosure (a situation that is also quite evident from appendix A of applicant's last response).

Even so, given a record in which applicant continues to argue that his pending claims are entitled to the 1981 priority date because they can be read in different ways on the 1981 and 1987 disclosures, a situation is created in which the "broadest reasonable meaning" of a claim's limitations takes on one meaning when defined by the file history itself (e.g. when based on applicant's attempt to read each claims' limitations, improperly, onto two completely different disclosures), and takes on a different meaning when defined, properly, from the originally filed 1987 disclosure by itself. Should the examiner apply the "prior art" according to the interpretations afforded by applicant's 1987 disclosure alone (as is proper), or should the examiner apply the "prior art" according to the interpretations created by applicant via his improper reliance on different subject matter from the different 1981 and 1987 specifications? No matter how you cut it, the result is confusion!

23) The following position taken by Judge Rich demonstrates that "continuity of disclosure", needed to establish the benefit of priority under section 120, requires continuity of "common subject matter" in a form that meets all of the requirements of section 112-1; e.g. even continuity of "best mode".

"It must be understood that the introduction of a new best mode disclosure would constitute the injection of 'new matter' into the application and automatically deprive the applicant of the benefit of the earlier filing date of the

1981 date of the parent application in which it was not disclosed).

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parent or original application for any claim whose validity rests on the new best mode disclosure”.

TRANSCO [38 F.3d 551; 32 U.S.P.Q.2D (BNA) 1077]

24) At times, applicant seems to be of the opinion that *only* the “enablement” requirement of section 112-1 applies to the issue of “continuity”. At other times, applicant seems to be of the opinion that *only* the “description” requirement of section 112-1 applies to the issue of “continuity”. On its face, one of these two positions must be wrong (i.e. they are mutually exclusive). In reality, both positions are wrong. As evidenced above, *ALL* of the requirements under section 112-1 apply to the issue of “continuity” (e.g. even “best mode”). Being such, applicant is only entitled to the benefit of an earlier filing date for claims that are directed to “common subject matter” for which “continuity” has been maintained between the present and the earlier filed application. “Continuity of common subject matter” exists between applications only when there is:

A) Continuity of “written description” between applications for the subject matter being claimed (as defined under section 112-1);

B) Continuity of “enablement” between applications for the subject matter being claimed (as defined under section 112-1); *and*

C) Continuity of “best mode” between applications for the subject matter being claimed (as defined under section 112-1).

[note sections 14 and 15 above]

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Being such, none of applicant's currently pending amended claims are entitled to the priority date of applicant's 1981 parent application in that the claims are not directed to "subject matter" ⁵⁶ for which there has been:

- a) the required continuity of "written description" between applications;
- b) the required continuity of "enablement" between applications;
and
- c) the required continuity of "best mode" between applications. ⁵⁷

25) It is understood that CIP practice allows an applicant to file a new application containing additional/new subject matter while preserving the applicant's right to claim (and the right to the earlier filing date for) subject matter which was previously disclosed in the parent application. But an applicant's right to claim subject matter from the parent application is only

⁵⁶ The "subject matter" currently being claimed corresponds to the metes and bounds of the pending amended claims as defined by the instant 1987 CIP specification from which they depend. Obviously, for reasons that have been addressed throughout the record, this 1987 "subject matter" currently being claimed is different from the 1981 "subject matter" which would have been claimed had the metes and bound of these same claims been defined by the past 1981 parent specification instead; i.e. evidencing the lack of continuity in "common subject matter" with respect to that which is claimed.

⁵⁷ e.g. applicant has argued that he was under no obligation to update his earlier filed disclosure with his "new best mode" when originally filed the present disclosure. The examiner strongly agrees. However, to maintain continuity between applications, applicant was required to at least carry forward the "old best mode" from of his earlier filed application into his originally filed present disclosure. Applicant failed to do this and therefor has not maintained "continuity of disclosure". For example, as was noted in part "13" of this paragraph, the "old best mode" of applicant's 1981 parent application was based exclusively on primitive 1981 cuing technology while the "new best mode" of applicant's present application was based exclusively on the more sophisticated 1987 "SPAM" technology (i.e. extended Teletext technology). In view that the primitive 1981 cuing technology was not carried forward into the present 1987 application, e.g. applicant's new 1987 disclosure literally replaced applicant's earlier filed 1981 disclosure in its entirety, the "old best mode" was in fact left behind (i.e. it had to be!). For this reason alone, the pending amended claims are not entitled to the 1981 priority date of applicant's parent application. Again, the pending amended claims are necessarily directed to the systems/methods of applicant's present 1987 disclosure which is based on the more sophisticated "SPAM" technology". Accepting applicant's claim to a 1981 priority date for these pending amended claims would allow applicant to transport claims which are necessarily directed to the 1987 disclosure/technology back in time to the 1981 date of the earlier disclosure/technology. Using this scheme, applicant would be able to improperly transport his new 1987 "best mode"/technology back in time to the 1981 date of his "old best mode"/technology.

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preserved for that subject matter of the parent application which has actually been carried forward (e.g. *incorporated*) into the disclosure of the CIP. Any and all subject matter from the parent application that is not carried forward into the disclosure of the CIP cannot be legally claimed within said CIP; i.e. the right to claim subject matter that is left behind is lost/forfeited with respect to said CIP application. To prevent such a loss/forfeiture, it is common for an applicant to draft the disclosure of his CIP application so that it literally incorporates the entire disclosure of the parent application, e.g. either physically or "by reference", thereby literally carrying forward all of the subject matter from the parent application into the CIP application and in doing so:

A) Preserving applicant's right to claim any/all of the subject matter from the parent within said CIP application; and

B) Preserving applicant's right to the filing date of the parent application for any/all claims which are directed to the subject matter of the parent application that has been carried forward into the CIP application.

In contrast to the common CIP practice described above, when filing his 1987 CIP disclosure, the present applicant elected to draft an entirely new specification and elected not to formally incorporate the disclosure from his 1981 parent application in its entirety. In fact, when filing his 1987 CIP disclosure, applicant elected to draft the entirely new specification in a way which makes it difficult to impossible to determine if any of the subject matter from his 1981 parent was carried forward into the disclosure of his CIP⁵⁸. Today, faced with the fact that subject matter which was not carried forward (i.e. *incorporated*) into the present disclosure has been lost/forfeited, applicant takes a leap of faith by suggesting that all of the subject matter from his 1981 parent application somehow/miraculously found its way into the new disclosure of his 1987 CIP. Clearly, this is not true. In fact, when one studies the two disclosures in detail, one actually finds that little to none of the subject matter from the 1981 parent made it

⁵⁸ For example: the 1987 CIP appears to have injected a "new best mode disclosure" by literally replacing the 1981 inventions with new 1987 inventions which, by itself, refutes all claims of priority to the 1981 filing date.

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into the 1987 CIP disclosure in a form that constitutes "common subject matter". For example, even the subject matter from the two disclosures which looks similar at first glance, is based on vastly different transmission technologies, different scopes/meaning/interpretations, and on a new "best mode" [e.g. note Appendix II of the Office action mailed 8/27/01 in SN 08/470,571]. Being such, it does not appear that any of applicant's currently pending amended claims are entitled to the 1981 date of applicant's parent application.

26) In the past, applicant seems to have suggested that even if one were to find that applicant's 1981 disclosure had not been carried forward into applicant's later filed 1987 disclosure, one/applicant could still rely on said 1981 disclosure to provide an understanding of the later filed 1987 disclosure with respect to issues under section 112. The examiner notes that only "prior art" can be used for such purposes. Therefor applicant's 1981 can only be used to clarify/supplement his 1987 disclosure if it is found to be "prior art" with respect to the 1987 disclosure. But if the 1981 disclosure is "prior art" for applicant's suggested purpose (i.e. for the purpose of understanding the later filed 1987 disclosure), then it must be "prior art" for issues under sections 102 and 103 too. Thus, for applicant to suggest that his 1981 disclosure be used as "prior art" for the purpose of understanding his 1987 disclosure seems to put applicant, at least potentially, on a very slippery slope; i.e. because if applicant's position were ever *legally* accepted, then applicant's 1981 disclosure would *legally* become "prior art" against the 1987 disclosure for sections 102 and 103 issues too.⁵⁹

⁵⁹ For the record: applicant's 1981 disclosure does not constitute "prior art" with respect to applicant's 1987 disclosure and therefor cannot serve as "prior art" for any purposes. Thus, applicant's 1981 disclosure cannot be used to supplement ones understanding of applicant's 1987 disclosure, with respect to issues under section 112-1, as seems to have been improperly suggested by applicant in the past. Specifically, with respect to section 112 issues, applicant's 1987 disclosure *stands alone*.

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27) The examiner notes that many of applicant's pending claims recite the following receiving station structures: a) a receiver; b) a signal detector; c) a processor; and d) an output device. Appendix A of the response filed on 6/7/2000 in SN 08/470,571 shows that:

- a) the recited "receiver" refers to nothing more than --a TV tuner--;
- b) the recited "signal detector" refers to nothing more than a decoder 203 which extracts and error corrects embedded information from the VBI of TV programming;
- c) the recited "processor" refers to nothing more than microcomputer 205; and
- d) the recited "output device" refers to nothing more than a "TV monitor".

The examiner maintains that all of these recited structures are found within a conventional CPU/MP/computer implemented Teletext receivers. For example, note:

- a) the TV tuning element (2);
- b) the extracting and decoding circuitry 8 and 11;
- c) the processing element (13); and
- d) the TV monitor/display (6),
of BETTS [GB 1,556,366].

Such further highlights the direct correlations that exists between the "SPAM" distribution system of applicant's alleged invention and the "Teletext" distribution systems of the "prior art". Again, the examiner believes that applicant's "SPAM" is, for all intents and purposes, synonymous with conventional "Extended Teletext" [note part "5)" of this section];

28) Applicant's originally filed instant disclosure clearly taught away from the "interactive" ultimate receiver station configuration which has been claimed during the present prosecution [note claim 56 as presented in the amendment filed 6/7/2000 and 7/13/2000 in 08/470,571]. Namely, as originally described, one of the key advantages that was allegedly offered by applicant's alleged inventions was the fact that the "ultimate receiver stations" produced their respective personalized audio/video presentation

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“automatically” and without any manual input from the viewer; e.g. whereby the complex processing that was involved within the system remained hidden from, and transparent to, the viewer/user; SEE:

A) lines 27-34 on page 11 of applicant’s instant disclosure as originally filed;

B) lines 18-20 on page 91 of applicant’s instant disclosure as originally filed;

C) lines 13-34 on page 427 of applicant’s instant disclosure as originally filed;

D) etc,...

Despite this original teaching, applicant has subsequently attempted to introduce pending amended claims into the record which, according to applicant’s own allegation (see the support for claim 56 as was set forth in APPENDIX A of the amendment filed on 6/7/2000 in SN 08/470,571), recite an “interactive” implementation of the originally disclosed non-interactive “ultimate receiver stations”. The section 112-1 problem is immediately apparent [also note the arguments set forth in latest Office action of SN 08/470,571].

29) As originally described, it appears that the “ultimate receiver stations” of applicant’s alleged invention produced the combined image of applicant’s figure 1C by (apparently) additively mixing the images of figures 1A and 1B in their entirety; i.e. this fact seems to explain why the “line” of figure 1A had to be produced “on a background color that is transparent when overlaid on a separate video image” as was described in applicant’s originally filed disclosure [see lines 9-14 on page 25 of applicant’s instant disclosure]. Despite this original teaching, applicant now attempts to introduce claims which recite a process in which the respective images are now combined in less than their entirety and/or in which one portion of one image is “replaced” by a portion of another. The section 112-1 problem is immediately apparent [note the latest Office action in SN 08/470,571].

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30) In the first two lines under the heading "*a. Independent Claim 56 and Dependent Claims Thereto*" on page 287 of the response filed 1/28/2002 in SN 08/470,571, applicant alleges that the publication date of the applied Gunn et al article was never established by the Office. This allegation is untrue. The following is noted:

a) This Gunn et al. article was originally submitted by applicant for consideration within voluminous IDS citations. However, as with many of these citations, applicant never provided the Office with information regarding the publication date of the article;

b) The Gunn et al. article has been applied by the Office against many of applicant's pending claims, and while applicant never provided the Office with the article's publication date, the Office was able to establish the date in question and notified applicant of it accordingly [note: the PTO- 892 of paper #2 in the present 08/470,571 record; the PTO-892 of paper #20 in SN 08/447,502; etc,...];

c) Again, the publication date for this Gunn et al. article, e.g. an article that was submitted by applicant for consideration against the pending amended claims, is March 26-28 of 1980. This date is, by any standard, valid "prior art" against all of applicant's pending claims.

31) etc,...

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SECTION V: Section 112-2 issues:

Claims 45-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following is noted:

- 1) The term "said information transmission" in line 2 of claim 45 has multiple antecedent basis and is confusing/indefinite because it is not clear if it refers to:
 - a) the recited "information transmission" that is received at the transmitter station [e.g. line 11 of claim 43];
 - b) the recited "information transmission" that is transmitted from the transmitter station [e.g. line 18 of claim 43];
 - c) or to some other "information transmission."
- Similar clarification is needed for claim 48.

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SECTION VI: Section 112-1 issues:

Claims 2-18, 20-30, 33-49, and 51-60 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In related ITC investigation No. 337-TA-392, the Administrative Law Judge found:

A) “that the specification of the ‘277 patent [the 557 pages of the instant 1987 disclosure] is difficult to understand, as it is dealing with many possible systems”;

B) “that despite complainant’s [the current applicant’s] attempts to point to the specification of the ‘277 patent [the 557 pages of the instant 1987 disclosure] as illustrative of some claim elements, said specification has not been helpful in connecting individual claim language to distinct statements in the specification of the ‘277 patent that is supposed to provide an explanation of the claimed systems in issue”;

C) “that complainant’s [the current applicant’s] assertions in many instances of where support in the specification of the ‘277 patent [the 557 pages of the instant 1987 disclosure] can be found for claimed elements ‘reads like the directions to a treasure hunt. There’s a piece here, there’s a piece there, it’s in there somewhere.’”; and

D) “ that the specification of the ‘277 patent [the 557 pages of the instant 1987 disclosure] and the claims in issue ‘are like ships passing in the night in the same ocean, but not necessarily sailing in the same direction.’”

[SEE: 1997 ITC Lexis 307, *258 (part I of II)]

The examiner continues to adopt these same positions in regard to the pending amended claims currently at issue. The following represent specific examples of

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such section 112-1 problems for which appropriate clarification by applicant is required:

A) WITH RESPECT TO CLAIM 2:

- 1) It is not clear where the disclosure as originally filed described the “plurality of signals” that are received in line 4. Clarification is needed.
- 2) It is not clear where the disclosure as originally filed described the “portion” of the plurality of signals that is recited in line 4. Clarification is needed.
- 3) It is not clear where the disclosure as originally filed described the “two media” of line 6. Clarification is needed.
- 4) It is not clear where the disclosure as originally filed described the “first medium” that is stored in line 7. Clarification is needed.
- 5) It is not clear where the disclosure as originally filed described the “first portion of said multimedia presentation” that is recited in line 8. Clarification is needed.
- 6) It is not clear where the disclosure as originally filed described the “second medium” that is received in line 9. Clarification is needed.
- 7) It is not clear where the disclosure as originally filed disclosed the “content” of the second medium that is “determined” in line 9. Clarification is needed.
- 8) It is not clear where the disclosure as originally filed described the “presentation” of line 10 that is “coordinated” under “computer control” based on the step of determining a “content” of the second medium. Clarification is needed.
- 9) It is not clear where the disclosure as originally filed described the “viewer” of line 13. Clarification is needed.
- 10) It is not clear where the disclosure as originally filed described the “listener” of line 13. Clarification is needed.
- 11) It is not clear where the disclosure as originally filed described the “content” of the first medium that is recited in line 14. Clarification is needed.

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12) It is not clear where the disclosure as originally filed described the “predetermined relationship” that is recited in line 15. Clarification is needed.

13) It is not clear where the disclosure as originally filed described the recited “method of outputting a multimedia presentation” which comprised:

a) the recited step of “receiving” that is recited in lines 4-6;

b) the recited step of “storing” that is recited in lines 7-8;

c) the recited step of “determining” that is recited in line 9;

d) the recited step of “coordinating” that is recited in lines 10-12; and

e) the recited step of “outputting” that is recited in lines 13-15.

Clarification is needed.

B) WITH RESPECT TO CLAIM 3:

It is not clear where the disclosure as originally filed described the “computer” of line 2 which stored said “first medium”. Clarification is needed.

C) WITH RESPECT TO CLAIM 4:

It is not clear where the disclosure as originally filed described the “computer” of line 2 which performs the recited step of “determining”. Clarification is needed.

D) WITH RESPECT TO CLAIM 5:

It is not clear where the disclosure as originally filed described “each of the plurality of signals” of lines 1 and 2 that are “received” from an “external transmitter station”. Clarification is needed.

E) WITH RESPECT TO CLAIM 6:

1) It is not clear where the disclosure as originally filed described the “signals” of line 3 that are originated from the recited “intermediate transmitter station” of line 2. Clarification is needed;

2) It is not clear where the disclosure as originally filed described a step/process in which the recited “receiver station” was “programmed” to process said “signals” which were originated by said “intermediate transmitter station”. Clarification is needed.

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F) WITH RESPECT TO CLAIM 7:

It is not clear where the disclosure as originally filed described the “content” of line 1 which explains the significance of a content of the first portion of the multimedia presentation. Clarification is needed;

G) WITH RESPECT TO CLAIM 8:

It is not clear where the disclosure as originally filed described the recited step for “causing” a “first selective transfer device” to communicate audio to an audio output device, wherein the audio explains the significance of the content of a first portion of a multimedia presentation. Clarification is needed;

H) WITH RESPECT TO CLAIM 9:

1) It is not clear where the disclosure as originally filed described the “further information for output” that is recited in lines 2. Clarification is needed;

2) It is not clear where the disclosure as originally filed described the “plurality of selective transfer devices” that are recited in line 3. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited step for “causing” the “plurality of selective transfer devices” to communicate “further information” to further output devices. Clarification is needed;

I) WITH RESPECT TO CLAIM 11:

1) It is not clear where the disclosure as originally filed described the “digital data channel” that is recited in lines 2. Clarification is needed;

J) WITH RESPECT TO CLAIM 12:

1) It is not clear where the disclosure as originally filed described the recited “first medium” that is received in a “digital data channel.” Clarification is needed;

K) WITH RESPECT TO CLAIM 13:

1) It is not clear where the disclosure as originally filed described the “identifier” that is recited in line 2. Clarification is needed;

2) It is not clear where the disclosure as originally filed described the recited step of “determining” which includes a step of “processing” said “identifier”. Clarification is needed.

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L) WITH RESPECT TO CLAIMS 14-16:

1) It is not clear where the disclosure as originally filed described a step in which “said content” of “said second” medium was “identified” by the processed “identifier” wherein said identified content includes:

- a) audio; and
- b) video.

Clarification is needed;

M) WITH RESPECT TO CLAIMS 17 and 18:

1) It is not clear where the disclosure as originally filed described a step of “storing” the second medium at the receiver station based on said step of determining a “content” of the second medium.

N) WITH RESPECT TO CLAIM 20:

1) It is not clear where the disclosure as originally filed described the “receiver station” of line 2 that is “adapted to process a plurality of signal.” Clarification is needed.

2) It is not clear where the disclosure as originally filed described the “source” of lines 5 that is “external” to said receiver station. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the “identifier” of line 6. Clarification is needed.

4) It is not clear where the disclosure as originally filed described the “first of said plurality of signals” of line 6 which include said “identifier.” Clarification is needed.

5) It is not clear where the disclosure as originally filed described the recited step of “processing” said “first of said plurality of signals” to provide the “first medium of said multimedia presentation” and said “identifier” [e.g. lines 7-8]. Clarification is needed.

6) It is not clear where the disclosure as originally filed described the “processor instruction” of line 11 that is received separately from said “identifier.” Clarification is needed;

7) It is not clear where the disclosure as originally filed described the step for “controlling” a receiver station to respond to a received “processor instruction”

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based on the step of identifying a “content” of a first medium, wherein said “content” of the first medium was identified via and “identifier” that was received separately from said processor instruction [note lines 10 and 11]. Clarification is needed.

8) It is not clear where the disclosure as originally filed described the step for “responding” to the received “processor instruction” based on an *implied* step in which a “content” of the second medium was also “identified” [note lines 12 and 13]. Clarification is required.

O) WITH RESPECT TO CLAIM 21:

1) It is not clear where the disclosure as originally filed described the recited “first selective transfer device” of line 2 wherein said “first selective transfer device” was controlled to transfer said “*first medium*” to and output device. Clarification is needed;

1) It is not clear where the disclosure as originally filed described the recited “first selective transfer device” of line 2 wherein said “first selective transfer device” was controlled to transfer said “*second medium*” to and output device. Clarification is needed;

P) WITH RESPECT TO CLAIM 22:

1) It is not clear where the disclosure as originally filed described the recited step of “controlling” the “first selective transfer device” wherein the said step of controlling comprises an *implied* step of “originating” said second medium. Clarification is needed.

Q) WITH RESPECT TO CLAIM 23:

1) It is not clear where the disclosure as originally filed described the recited “plurality of selective transfer devices” of line 2, wherein a second one of the “plurality of selective transfer devices” are caused to “store said first medium.” Clarification is needed.

R) WITH RESPECT TO CLAIM 24:

1) It is not clear where the disclosure as originally filed described the recited “at least two different sources” of line 4. Clarification is needed.

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2) It is not clear where the disclosure as originally filed described the recited “remote transmitter” of line 7. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited “control signal” of line 7. Clarification is needed.

4) It is not clear where the disclosure as originally filed described the recited “receiver station” of lines 7 and 8. Clarification is needed.

5) It is not clear where the disclosure as originally filed described the “content” that is identified in lines 9 and 10 based on the “control signal” that is received at a receiver station from a remote transmitter station. Clarification is needed.

6) It is not clear where the disclosure as originally filed described the step of “coordinating” the presentation of the first medium with the presentation of the second medium based on the step in which the “content” of said first medium was identified based on said “control signal.” Clarification is needed.

S) WITH RESPECT TO CLAIM 25:

1) It is not clear where the disclosure as originally filed described the recited “speaker” and “printer” which comprise the first and second output devices of claim 24 to which are outputted the first and second mediums of claim 24. Clarification is needed.

T) WITH RESPECT TO CLAIM 26:

1) It is not clear where the disclosure as originally filed described the recited “plurality of media” that is recited in line 2. Clarification is needed.

2) It is not clear where the disclosure as originally filed described:

a) the “one” of the “plurality of media” that is processed by the receiver station as is recited in line 2; and

b) the “two” of the “plurality of media” that are processed by the receiver station as is recited in lines 6 and 7.

Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited “different sources” that are recited in line 5. Clarification is needed.

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4) It is not clear where the disclosure as originally filed described the recited step of “identifying” a content of a first and a second one of the “plurality of media” based on the step of processing at least two of said plurality of media as is recited in lines 8 and 9. Clarification is needed.

5) It is not clear where the disclosure as originally filed described the recited step for “outputting said multimedia presentation based on said step of identifying” that is recited in line 10, wherein said step of identifying operates to identify a content of a first and a second one of the “plurality of media” based on the step of processing at least two of said plurality of media. Clarification is needed.

6) It is not clear where the disclosure as originally filed described:

a) the recited “sequential” presentation of line 11;

b) the recited “simultaneous” presentation of line 11;

U) WITH RESPECT TO CLAIM 27:

1) It is not clear where the disclosure as originally filed described the recited “storage device” of line 2. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited step of storing “said at least two of said plurality of media” at the receiver station as is recited in lines 2 and 3, wherein:

a) “said at least two of said plurality of media” are processed at the receiver station to output a multimedia presentation [note lines 6 and 7 of claim 26]; and

b) “contents” of “said at least two of said plurality of media” are identified based on said processing.

Clarification is needed.

V) WITH RESPECT TO CLAIM 28:

1) It is not clear where the disclosure as originally filed described the recited “portion of said multimedia presentation” that is recited in line 2. Clarification is needed.

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2) It is not clear where the disclosure as originally filed described the recited step of “originating” of lines 1 and 2, wherein said step of originating the portion of said multimedia presentation based on the step of storing at least two of said plurality of media. Clarification is needed.

W) WITH RESPECT TO CLAIM 29:

1) It is not clear where the disclosure as originally filed described the “series of discrete video images” of line 4. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the “processor” of line 3 which creates the “series of discrete video images.” Clarification is needed.

3) It is not clear where the disclosure as originally filed described the “control signal” of line 3 which “programs a processor.” Clarification is needed.

4) It is not clear where the disclosure as originally filed described the recited step of “processing” the “control signal” which was used to “program” the processor. Clarification is needed.

5) It is not clear where the disclosure as originally filed described the “video image of said series of discrete images” of line 7 that is based on a step of identifying a content of a first medium. Clarification is needed.

6) It is not clear where the disclosure as originally filed described the “output device” of line 10. Clarification is needed.

X) WITH RESPECT TO CLAIM 30:

1) It is not clear where the disclosure as originally filed described the “identifier” of line 3 that is received from a “remote transmitter station.” Clarification is needed.

2) It is not clear where the disclosure as originally filed described the *implied* step of “processing” the received identifier of line 2, wherein this *implied* step of “processing” is comprised within a step of identifying a content of a first medium. Clarification is needed.

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Y) WITH RESPECT TO CLAIM 33:

1) It is not clear where the disclosure as originally filed described the “first signal” of line 3 that is “received from a remote transmitter station.” Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited step of “outputting said first signal at said receiver station” [note line 4]. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the “user response” of line 3 that is received based on the step of outputting said “first signal.” Clarification is needed.

4) It is not clear where the disclosure as originally filed described:

a) the “content” that is “identified” in line 6;

b) the “content” that is “compared” with stored data in lines 7 and 8.
Clarification is needed.

5) It is not clear where the disclosure as originally filed described the “data” of line 7 that is stored at said receiver station. Clarification is needed.

6) It is not clear where the disclosure as originally filed described the step of “tuning said receiver station to receive a second signal” of lines 9 and 10, wherein said step of tuning is based on a step in which an identified content of a first signal was compared with data stored at the receiver station based on a user’s response. Clarification is needed.

Z) WITH RESPECT TO CLAIM 34 and 36:

1) It is not clear where the disclosure as originally filed described the “information” of line 2 that is transmitted, by telephone, from said receiver station based on the step of receiving a user response. Clarification is needed.

A2) WITH RESPECT TO CLAIM 35:

1) It is not clear where the disclosure as originally filed described the “portion of said user response” that is recited in line 2. Clarification is needed.

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B2) WITH RESPECT TO CLAIM 37:

1) It is not clear where the disclosure as originally filed described the “portion of the plurality of signals” of lines 2 and 3 that is received by “at least one receiver” from an external “source.” Clarification is needed.

2) It is not clear where the disclosure as originally filed described the “storage device” of line 5. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the “first portion of a multimedia presentation” of line 7. Clarification is needed.

4) It is not clear where the disclosure as originally filed described the “content of the second medium” that is implicitly “determined” in line 11. Clarification is needed.

5) It is not clear where the disclosure as originally filed described the “at least one processor” of line 7 that is “operatively connected” to “at least one receiver” and to a “storage device”, wherein said at least one processor coordinates the presentation of first and second mediums of a multimedia presentation based on an *implied* step of determining a content of the second medium. Clarification is needed.

6) It is not clear where the disclosure as originally filed described the “at least one output device” of line 12 that is “operatively connected” to “at least one receiver” and “at least one of”:

a) said “at least one processor”; and

b) said “storage device.”

Clarification is needed.

7) It is not clear where the disclosure as originally filed described the “portion of the plurality of signals” of lines 2 and 3 that is received by “at least one receiver” from an external “source.” Clarification is needed.

8) It is not clear where the disclosure as originally filed described:

a. the “viewer” of line 14; and

b. the “listener” of line 14.

Clarification is needed.

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9) It is not clear where the disclosure as originally filed described the “predetermined relationship” that is recited in lines 15 and 16. Clarification is needed.

C2) WITH RESPECT TO CLAIM 38:

1) It is not clear where the disclosure as originally filed described the “identifier” of line 2 that is transmitted from the external “source.” Clarification is needed.

2) It is not clear where the disclosure as originally filed described the “detector” of line 4 that detects the “identifier” that is transmitted from the external “source.” Clarification is needed.

D2) WITH RESPECT TO CLAIM 39:

1) It is not clear where the disclosure as originally filed described the “multichannel signal” of line 2. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the “converter” of line 3 that is “operatively connected” to “at least one receiver.” Clarification is needed.

E2) WITH RESPECT TO CLAIM 40:

1) It is not clear where the disclosure as originally filed described the “first controlled device” of lines 1 and 2 for causing said “converter” to select said “second” medium. Clarification is needed.

F2) WITH RESPECT TO CLAIM 41:

1) It is not clear where the disclosure as originally filed described the “second storage device” of line 2 that is “operatively connected” to the “converter” for storing said “second medium.” Clarification is needed.

G2) WITH RESPECT TO CLAIM 42:

1) It is not clear where the disclosure as originally filed described the “second controllable device” of line 2 that is “operatively connected” to the “at least one processor” for causing “said second storage device” to store “said second medium.” Clarification is needed.

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H2) WITH RESPECT TO CLAIM 43:

1) It is not clear where the disclosure as originally filed described the “receiver station” of line 1 that is “enabled” to output a multimedia presentation. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the “first medium” of lines 2 and 3 which is “stored” at the receiver station. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the “content of the second medium” that is recited in lines 4 and 5 that is “determined” at the receiver station. Clarification is needed.

4) It is not clear where the disclosure as originally filed described the “transmitter station” of line 11. Clarification is needed.

5) It is not clear where the disclosure as originally filed described the “information transmission” of line 11 that is literally:

a) “*adapted*” to cause the receiver station to determine the content of the second medium;

b) “*adapted*” to coordinate presentation of a first portion of said multimedia presentation with said presentation of said second medium based on a process in which the content of the second medium is determined; and

c) “*adapted*” to output the multimedia presentation based on coordinating said presentation of said “first portion” with the presentation of said second medium.

It is also not clear where the disclosure as originally filed described the recited receiving step in which such an *adapted* “information transmission” was actually “received” at a “transmitter station” as is now recited in lines 11-17. Appropriate clarifications are needed.

6) It is not clear where the disclosure as originally filed described the “specific time” of line 19. Clarification is needed.

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I2) WITH RESPECT TO CLAIM 44:

- 1) It is not clear where the disclosure as originally filed described the “first identifier” of line 2. Clarification is needed.
- 2) It is not clear where the disclosure as originally filed described the recited step of transmitting said “first identifier” as is recited in lines 3. Clarification is needed.

J2) WITH RESPECT TO CLAIM 45:

- 1) It is not clear where the disclosure as originally filed described the recited including step in which the “first identifier” is actually “included” in “said information transmission”. Clarification is needed.

K2) WITH RESPECT TO CLAIM 46:

- 1) It is not clear where the disclosure as originally filed described the “second identifier” of line 2 that serves as the basis for processing a portion of the first medium. Clarification is needed.
- 2) It is not clear where the disclosure as originally filed described the recited including step in which the “second identifier” was transmitted. Clarification is needed.

L2) WITH RESPECT TO CLAIM 47:

- 1) It is not clear where the disclosure as originally filed described the “particular time” of lines 2 and 4. Clarification is needed.

M2) WITH RESPECT TO CLAIM 48:

- 1) It is not clear where the disclosure as originally filed described the “processor instruction” of line 2 which is received at the receiver station “separately from” the “first identifier.” Clarification is needed.
- 2) It is not clear where the disclosure as originally filed described the including step of line 4 wherein the “processor instruction” was actually included in “said information transmission.” Clarification is needed.

N2) WITH RESPECT TO CLAIM 49:

- 1) It is not clear where the disclosure as originally filed described the “specific time” that is recited in line 3. Clarification is needed.

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O2) WITH RESPECT TO CLAIM 51:

1) It is not clear where the disclosure as originally filed described the recited “receiver station” of line 2 that is:

- a) “adapted” to receive a plurality of signals;
- b) “adapted” to store a first medium;
- c) “adapted” to determine the content of a second medium;
- d) “adapted” to coordinate the presentation of a first portion of a multimedia presentation with the presentation of the second medium based on the determined content of the second medium; and
- a) “adapted” to output said multimedia presentation based on the coordination of the presentation.

Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited “transmitter apparatus” of line 8. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited “receiver” of line 9. Clarification is needed.

4) It is not clear where the disclosure as originally filed described the “first of said plurality of signals” of lines 9 and 10 that is:

- a) “adapted” to cause the receiver station to determine the content of the “second medium”;
- b) “adapted” to cause the receiver station to coordinate the “presentation of a first portion of a multimedia presentation with the presentation of a second medium based on the determined content of the second medium; and
- c) “adapted” to cause the receiver station to output the multimedia presentation.

Clarification is needed.

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5) It is not clear where the disclosure as originally filed described the recited "first of said plurality of signals" that is received by the "receiver" in line 9. Clarification is needed.

6) It is not clear where the disclosure as originally filed described a the recited "transmitter" of line 16 that transmits said "first of said plurality of signals." Clarification is needed.

7) It is not clear where the disclosure as originally filed described a the recited "specific time" of line 17. Clarification is needed.

P2) WITH RESPECT TO CLAIM 52:

1) It is not clear where the disclosure as originally filed described the recited "plurality of signals" of line 2 that is transmitted from said "transmitter" and received by said "receiver station." Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited "apparatus" of line 2 which comprised:

a) the recited "signal generator" of line 3;

b) the recited "second receiver" of line 3.

Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited "second of said plurality of signals" of lines 3 and 4. Clarification is needed.

Q2) WITH RESPECT TO CLAIM 53:

1) It is not clear where the disclosure as originally filed described the recited "single information transmission" of line 2." Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited "combiner" of line 3. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited "multiplexer" of line 3. Clarification is needed.

R2) WITH RESPECT TO CLAIM 54:

1) It is not clear where the disclosure as originally filed described the recited "first processor" of line 3 which outputs the recited "first identifier" which is processed

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by the receiver station in order to determine the content of said "second medium."
Clarification is needed.

S2) WITH RESPECT TO CLAIM 55:

1) It is not clear where the disclosure as originally filed described the recited "receiver station" of lines 1 and 2 which processed "a portion" of the first medium based on the second identifier. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited "selective transfer device" of line 3 for communicating both the first and second identifiers to the "transmitter". Clarification is needed.

T2) WITH RESPECT TO CLAIM 56:

1) It is not clear where the disclosure as originally filed described the recited "controller" of line 3. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited "different times" of line 5. Clarification is needed

U2) WITH RESPECT TO CLAIM 56:

1) It is not clear where the disclosure as originally filed described the recited "transmitter station" of line 2. Clarification is needed.

2) It is not clear where the disclosure as originally filed described the recited "receiver station" of line 2. Clarification is needed.

3) It is not clear where the disclosure as originally filed described the recited "different sources" of line 3. Clarification is needed.

4) It is not clear where the disclosure as originally filed described the recited "at least two of said plurality of media" of line 4 that are processed by the receiver station in order to output the multimedia presentation. Clarification is needed.

5) It is not clear where the disclosure as originally filed described the recited "content of a first of the plurality of media" and the recited "content of a second of the plurality of media" that are identified by the receiver station. Clarification is needed.

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6) It is not clear where the disclosure as originally filed described the recited “processing” of at least two media that is recited in line 6 which serves as a basis for identifying “contents” of at least two media. Clarification is needed.

7) It is not clear where the disclosure as originally filed described the recited “instruction” of line 9. Clarification is needed.

8) It is not clear where the disclosure as originally filed described the recited step of “receiving” two of the plurality of media and the instruction at the transmitter station [e.g. it is not clear where the disclosure as originally filed actually described the step that is now recited in lines 11 and 12 of claim 57]. Clarification is needed.

9) It is not clear where the disclosure as originally filed described the recited step of “transmitting” two of the plurality of media based on the received instruction [e.g. it is not clear where the disclosure as originally filed actually described the step that is now recited in lines 13 and 14 of claim 57]. Clarification is needed.

V2) WITH RESPECT TO CLAIMS 58-60:

CLAIMS 58-60 require similar clarifications as cited above.

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SECTION VII: (Preface to the Rejection of CLAIMS Based on Prior Art Applied Under Sections 102 and 103).**A. "DISCRETE SIGNALS" OF TELETEXT PRIOR ART:**

When applying "prior art" against pending amended claims, it is both proper and fair for the examiner to draft a rejection based on the ordinary level of skill in the art that existed at the time of applicant's alleged invention. Being such, when applying the prior art of record against the pending amended claims, it is both proper and fair for the examiner to assume that one of ordinary skill in the art would have understood the way in which "standardized" Teletext transmission systems operated to format and distribute "pages" of Teletext data through TV networks. Namely, the examiner maintains that it should NOT be necessary for the examiner to provide teachings in order to explain/evidence the "basics of Teletext"; e.g. Teletext 101.

However, applicant continues to submit arguments which misrepresent the way in which "standardized" Teletext systems operated to convey Teletext data through conventional TV networks. Via such arguments, applicant not only imposes an unrealistically low level of skill onto section 102 and 103 issues, but applicant effectively places a heavy burden on the examiner to provide an education in what was already well known; e.g. to try to ensure that the teachings/showings of the applied Teletext "prior art" are considered in the context that they would have been read and understood by those of ordinary skill in the art at the time of applicant's alleged invention. For example, if a piece of applied Teletext "prior art" refers to Teletext "pages", there should be no need for the examiner to explain what such a Teletext "page" is, what it comprised, and how it conveyed its data/information. One of ordinary skill in the art would have most certainly known such facts! However, by "*playing dumb*" and alleging that Teletext "pages" were not comprised of "discrete signals", applicant has forced the examiner to provide explanations/showings which are (i.e. should be) unnecessary. This adds an appearance of complexity to rejections made under section 102 and 103 where there should be none. Here, it is interesting to note that much (if not most) of the "prior art" which has been submitted for consideration by applicant during the present prosecution is in fact Teletext "prior art", thereby indicating that the examiner is not the only person who recognizes the relationship that clearly exist between "extended" Teletext packet systems and the "SPAM" message packet system of applicant's own claimed invention(s). In submitting such prior art for consideration, applicant appears to be aware of these relationships too.

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For clarity of the record:

The examiner maintains that one of ordinary skilled in the Teletext transmission art would have understood that substantially all (if not all) “standardized” Teletext transmission systems operated by:

- 1) Breaking each complete displayable or non-displayable form of Teletext information down into a plurality of discrete “information portions” that can be conveyed via the available bandwidth;
- 2) Utilizing “discrete packet signals” to carry these created discrete information portions through a given TV network by embedding each of the “discrete packet signals” into a respective video line interval of distributed TV programming; and
- 3) Recovering desired ones of the complete displayable and non-displayable forms of Teletext information on the receiver side of the system via a Teletext decoder which functioned:
 - a) to receive the distributed TV signals containing the embedded “discrete Teletext packet signals”;
 - b) to separate the embedded “discrete Teletext packet signals” from the received TV signals;
 - c) to decode the separated “discrete Teletext packet signals” and to extract those “information portions” therefrom which correspond to a respective complete displayable or non-displayable form of Teletext information desired by the receiver side of the system;
 - d) to organize (e.g. re-organize) the extracted information portions so as to recover the desired complete displayable or non-displayable form of Teletext information; and
 - e) to use the recovered complete displayable or non-displayable form of Teletext information at the receiver side to:
 1. Instruct the receiver side of the system as to how to “locally generate” a displayable Teletext image when the recovered information represents a displayable image;
 2. Trigger equipment of the receiver side of the system to take certain action when the recovered information represents equipment control signaling;

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3. Load a computer/microprocessor at, or within, the receiver side of the system when the recovered information represents "Telesoftware";
4. Identify the TV program and/or the TV network of the programming currently being received; and
5. ETC,...

In the response filed on 1/28/02 in SN 08/470,571, applicant refutes the fact that one of ordinary skill in the art would have had such a basic understanding of "prior art" Teletext systems. Applicant goes so far as to characterize the examiner's position concerning the inherent existence of "discrete signals" within standardized Teletext transmission systems as only being "hypothetical" in nature [e.g. lines 4-9 on page 356 of the amendment filed in SN 08/470,571]. The examiner could not disagree more. Hence, via "APPENDIX B" of this Office action, the examiner attempts to establish a "floor" below which applicant's erroneous characterizations/misunderstandings/misrepresentations of the conventional Teletext "prior art" should not be allowed to sink.

B. "SPAM" OF APPLICANT'S ALLEGED INVENTION REPRESENTS LITTLE MORE THAN APPLICANT'S OWN VERSION OF AN "EXTENDED" TELETEXT TRANSMISSION SCHEME (AND APPLICATIONS THEREOF):

As best understood by the examiner, applicant's instant 1987 disclosure described a television distribution system in which digitally encoded "SPAM message" packets were generated by a SPAM signal source and embedded, preferably, into the vertical blanking interval (VBI) of TV programming that was provided from a TV studio (i.e. the network/originating TV station). The TV programming along with its embedded SPAM message packets were then distributed/transmitted from a network/originating TV station, via a television distribution network, to various "receiver stations" which were situated throughout the distribution network; i.e. wherein the term "receiver station" was used by applicant in a way that encompasses both "intermediate TV broadcast stations" and "ultimate household receiver stations". At one of the receiver stations, one of the "SPAM message" packets were received (i.e. extracted from the TV programming), identified, decoded, and processed or outputted by

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SPAM signal receiving/decoding circuitry. In the preferred embodiment, the SPAM signal receiving/decoding circuitry was implemented using software driven processors.

As also described in applicant's 1987 disclosure, the SPAM message packets that were distributed by applicant's television distribution system carried information pertaining to a wide variety of control, monitoring, and messaging functions. More specifically, the information carried by the SPAM message packets could be used to: 1) to distribute display information to ones of the receiver stations; 2) to distribute monitoring information to ones of the receiver stations; 3) to distribute program identification codes to ones of the receiver stations; 4) to distribute cuing/triggering signals to ones of the receiver stations; 5) to distribute computer software to ones of the receiver stations; 6) to distribute commands to ones of the receiver stations; etc,...

The following is noted:

1) In the past, the examiner argued that applicant's SPAM message packets comprised little more than applicant's own version of conventional packetized Teletext data. At that time, applicant disagreed with the examiner's position arguing that term "Teletext" referred **only** to the transmission of digitally coded character/graphics codes. Strictly speaking, applicant was correct. What the examiner should have stated was that applicant's SPAM message packets comprise little more than applicant's own version of conventional digitally encoded "insertion/ancillary signaling"; i.e. conventional "insertion/ancillary signaling" to "Teletext data" was known to have belonged. While the examiner is willing to accept/entertain applicant's strict interpretation of the term "Teletext", the examiner nonetheless points out that it was notoriously well known in the art to have "extended" the use of conventional Teletext data packets within conventional Teletext distribution systems to carry information/data other than digitally coded character/graphics codes; i.e. to have carried ancillary data other than "Teletext data" as strictly defined by applicant (e.g. computer programs/software, e.g. *Telesoftware*, being but one example of these know Teletext packet "extensions") [SEE Appendix B attached hereto]. Applicant's SPAM packets appear to be little more than applicant's own version of such an "extended" Teletext system; e.g. a fact which seems self evident when one compares the content and packet structure of applicant's own "SPAM" messages shown in figures 2E-2K of applicant's instant disclosure with the content and packet structure of conventional extended Teletext systems (e.g. such as that which was discussed in

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APPENDIX B of this Office action). Being such, it appears that the arguments previously presented by applicant merely focussed on the technicality those data packets of an "extended" Teletext distribution system which carry *other types of information* are not, strictly speaking, Teletext data packets; i.e. they do not carry character/graphics codes. So what!

The fact remains that the generation and embedding of digitally encoded packetized data within the VBI of distributed TV programming, e.g. in the form of digitally encoded "insertion/ancillary signals" including packetized "Teletext data", was notoriously well known in the art at the time of applicant's alleged invention. It remains the examiner's position that the generation and embedding of SPAM message packets into the VBI of distributed TV programming, as described in applicant's own 1987 disclosure, represents applicant own variation on this notoriously well known theme. The examiner is not to saying that applicant's own variation/application/implementation of such insertion/ancillary systems are necessarily unpatentable based solely on this fact. However, the examiner is again stressing the point that the applied prior art of record, e.g. particularly the "Teletext" prior art, is far more closely related to applicant's alleged invention than applicant is willing to admit. the terminology used throughout applicant's claims and disclosure suggest. Likewise, it is believed that the prior art of record, e.g. particularly the "Teletext" prior art, is also far more closely related to applicant's alleged invention than applicant has ever been willing to acknowledge ⁶⁰. In view of this, the examiner maintains that extreme care is needed as one attempts to decipher the scope/meaning of applicant's pending claims in the search of recited differences that do more than give an appearance or impression of patentability. To this point, the following is noted:

1) Many of applicant's claims recite various "discrete signals". As set forth in Appendix A of applicant's response filed on 6/7/2000 in SN 08/470,571, all of the various "discrete signals" recitations are allegedly supported solely by the fact that the SPAM signals of his 1987 disclosure comprised: discrete words, discrete packets, discrete sequences of packets, discrete header portions, and discrete information portions. The examiner maintains that, by giving such a broad meaning to the recited "discrete signal"

⁶⁰ Obviously the reason so much Teletext "prior art" art has been made of record by all involved!

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terminology, the recited "discrete signal" terminology does little to nothing to overcome/avoid the applied prior art of record because the digitally encoded "insertion/ancillary signals", e.g. packetized "Teletext data" of the applied prior art, implicitly comprised: discrete words, discrete packets, discrete sequences of packets, discrete header portions, and discrete information portions too [see APPENDIX B attached hereto]. Hence, the various "discrete signals" recitations of the claims appear to be nothing more than a *straw man*.

2) Many of applicant's claims recite pluralities of **separate** steps for embedding, transferring, transmitting, and receiving **separately** recited "discrete signals", "instructions", "instruction signals", and "control signals". However, when specifying where these **separate** steps allegedly derive support from his 1987 disclosure [see Appendix A of applicant's latest response], applicant points to the **same** disclosed "step" (?) in which the SPAM messages themselves were generically described as being originated, embedded, transferred, transmitted, and then received. Thus, based on applicant's citation of alleged support from Appendix A of applicant's latest response, it appears to be applicant's position that all of these separately recited steps from applicant's claims were obviously/implicitly described in his 1987 disclosure by the described generation, embedding, transferring, transmitting, and receiving of the SPAM messages themselves. Specifically, applicant appears to allege that any step/process which was described as having been performed on the SPAM messages themselves was also, implicitly, performed separately on each component thereof (wherein the SPAM messages themselves comprised different discrete signals, different instruction signals, different instructions, and different control signals). More specifically, it appears to be applicant's position that because the disclosure described the generation, embedding, transferring, transmitting, and receiving of SPAM messages, said disclosure implicitly described the generation, embedding, transferring, transmitting, and receiving of the different discrete signals, different instruction signals, different instructions, and different control signals which comprised the SPAM messages [e.g. note that Appendix A of applicant's last response alleges that support for

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many of the separately recited steps and signals (i.e. instructions and control signals) is derived the same step of processing the same "second series of instructions"]. Overlooking the issue as to whether this kind of ***implied*** support meets the "immediately discernible" description requirement of section 112-1 (in the examiner's opinion, it does not), it is evident that **separately** reciting the same disclosed step/process numerous times in a single claim does little to nothing to overcome/avoid the applied prior art of record because the digitally encoded "insertion/ancillary data" of the applied prior art, e.g. packetized "Teletext data", also obviously/implicitly comprised different instructions, different control signals, different instruction signals, and different discrete signals and therefor, following applicant's own reasoning and justification, also obviously/implicitly comprised **separate** steps of generating, embedding, transferring, transmitting, and receiving each of the insertion/ancillary signal components. Again, reciting pluralities of **separate steps** which simply describe the same steps of processing and transmitting generic SPAM message packets constitutes another *straw man* (i.e. albeit, a convoluted and confusing *straw man*);

3) Many of applicant's claims recite that each receiver station "includes a receiver, a signal detector, a processor, and an output device." The examiner maintains that such structure is part of any/all TV receivers and is also part of any/all digitally encoded insertion/ancillary signal receivers/decoders; i.e. any/all TV receivers and insertion/ancillary signal receivers/decoders must have comprised circuitry for receiving the transmitted/broadcasted signals, circuitry for demodulating/detecting the transmitted/broadcasted signal, circuitry for processing the demodulated signals; and circuitry for outputting/displaying data/information based on the received signals. Thus, the examiner maintains that these recitations also constitute nothing more than *straw men* [for example, see "EXAMPLE #20" in the second paragraph under the heading "SECTION v" of this Office action]

4) Many of applicant's claims include words or phrases which initially appear to be significant but, upon close inspection, add

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nothing of substance to the claim(s). For example: the recitation of "at a particular place and time" (i.e. any signal that is received will be received at a particular place and time); the recitation of a "target" processor (i.e. any processor which receives information directed to it is at least *targeted* by that information); the recitation of "before a specific time" (i.e. all signals must be transmitted from the transmission side before "some specific time" at which they are received on the receiver side); etc,... Simply more *straw men*!

C. APPLICANT'S CURRENTLY PENDING CLAIMS ARE NOT ENTITLED TO THE 11/3/81 FILING DATE FOR REASONS WHICH HAVE BEEN FULLY ADDRESSED ABOVE AND PREVIOUSLY.

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SECTION VIII: Section 103 issues:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

A) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baer [US #4,034,990] in view of Jeffers et al. [US #4,247,106].

I. The showing of Baer (an overview):

As is shown in figure 3, Baer disclosed a "video gaming" system comprised of a remote transmitter station (@ 10, 34, and 36) and at least one receiver station (@ 12, 14, 20, 24, 26, 28, 29, 38, and 40). The transmitter side of the system included a remote source of video signal (@10) for providing at least one analog TV signal comprised of "second" video graphic images. These "second" video graphics images represented complex video backgrounds that included a plurality of "second" video graphic symbols/icons. These "second" video graphics images were also encoded with "identifiers" for identifying certain characteristics of the background symbols/icons [e.g. note lines 19-48 of column 2].

The receiver side of the system disclosed by Baer included circuitry receiving circuitry (@ 38 and 40) for receiving said at least one analog video signal from the remote transmitter station. The receiver side of the system also included decoding circuitry (@ 13) for extracting the "identifiers" from the received analog video signal. These extracted identifiers were provided to control circuitry (@ 24) which, in coordination thereto, locally generated "first" video graphic images based on user inputs from input devices (26 and 28). These locally generated

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“first” video graphic images comprised “first” video graphic symbols/icons which were then overlaid on top of the “second” video graphic images (@ 12) in an “interactive”/“coordinated” manner. Namely, the “first” graphics images were overlaid on top of the “second” graphics images to produce a combined presentation in which the “first” graphic symbols/icons interacted with identified ones of the “second” graphic symbols/icons.

It should be noted that the reason the complex background images were provided via a remote “external” analog video signal source in such video gaming systems was due to the fact that an enormous amount of programming/processing power was needed on the receiver side of the system if/when such complex background images were to have been locally generated within logic/control circuitry (24) instead. Specifically, generating the complex video graphic backgrounds via an external and/or remote analog video signal source, instead the local logic circuitry (24), greatly reduced the amount of programming/processing power that was required of the local logic circuitry; i.e. be it implemented with dedicated logic circuitry or a programmable computer.⁶¹

II. The showing of Baer (a closer look):

As is shown in figure 3, the “video gaming” system disclosed by Baer comprised:

A) Said remote transmitter station (@ 34) for receiving an externally provided video graphic signal from a remote video signal source (10) and for passing this received video signal to a transmitter (37) for transmission over the air or through a CATV distribution system [note lines 52-60 of column; and

B) At least one receiver station (12, 14, 20, 26, 28, 29, 38, 40) for outputting a “multimedia presentation” by interactively overlaying “a **first portion**” of the multimedia presentation over a second portion of the multimedia presentation, wherein:

1) said first portion of the multimedia presentation comprised the locally generated graphic symbols/icons which were provided via game controller (24); and

⁶¹ Also note:

1) the cover page of Matsushita [JP 55-26792];
2) lines 24-34 of Kanamara et al. [US 4,580,779]; and
3) figure 3 and lines 1-15 in column of Baer et al. [US 4,359,223].

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2) the second portion of the multimedia presentation comprised the composite analog video signal that was transmitted via the transmitter station.

Said receiver station comprised:

1) circuitry (e.g. 38, 40) for “**receiving**” the composite analog video signal from the transmitter station;

2) circuitry (e.g. 14, 24) for detecting, decoding, and “**determining a video content**” of the received analog video signal based on detected “identifiers” which were encoded within the analog video signal;

3) circuitry (e.g. 12, 29, 24, 26, 28) for **coordinating** the presentation of the locally provided “video graphics data” with the presentation of the analog video signal based on said determined content; and

4) circuitry (e.g. 12, 30) for outputting the multimedia presentation.

III. Differences:

Claim 2 differs from the showing of Baer only in that:

1) Baer did not explicitly state that his game control circuitry (24) comprised a software driven computer (e.g. as opposed to dedicated logic circuitry); and

2) Baer did not state that his game control circuitry (24) was programmed via software signaling that was provided to it from some external software signal source.

IV. Obviousness:

The examiner believes that the control circuitry (24) in Baer most likely comprised a software driven computer. However, even if the game control circuitry (24) in Baer happened to be implemented using dedicated logic circuitry, it would have at least been obvious to have replaced such dedicated logic circuitry with a software driven computer given the fact that such a modification represented nothing less than a known, desirable, and obvious upgrade of technology [e.g. as per the teachings found in lines 9-34 of column 1 in Jeffers et al.]. Such a desirable upgrade of technology advantageously allowed different

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video games to have been selected and played by the user simply by loading new software into to the computer.

As to the mechanism by which the gaming software was to have been changed, Jeffers et al. also evidenced the obviousness of having enabled it to be externally downloaded to the receiver station, via a digital data channel, from a gaming software database located at the TV transmitter station (e.g. such as a CATV head end) [e.g. lines 35-56 in column 1 of Jeffers et al.]. The examiner maintains that it would have been obvious to have “further” modified the system disclosed by Baer to have included this software downloading feature/enhancement that was described in Jeffers et al.

THE FOLLOWING IS NOTED:

In the system disclosed by Baer, as modified by the teachings of Jeffers et al., the computer gaming “software” constituted a first type of media or medium which was downloaded to the receiving stations, via a digital channel medium, in order to have programmed ones of the receiving stations’ computers with the processing instructions which were required to have locally generated the video graphic symbols/icons media which, when overlaid onto a different analog TV signal media in coordination with the “identified” images contained there within, created the combined “multimedia”⁶² presentations which was displayed at the respective receiver stations.

B) CLAIMS 3-6, 11-14, 16, 17, 20-24, 26, 29, 30, 37-39, 43-46, 48, 49, 51, 52, and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer [US #4,034,990] in view Jeffers et al. [US #4,247,106], for the same reasons that were set forth for claim 2 above.

⁶² e.g. comprising computer/software/logic generated symbols and icons overlaid onto analog TV images.

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C) CLAIMS 53, and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer [US #4,034,990] in view Jeffers et al. [US #4,247,106], for the same reasons that were set forth for claim 52 above, and further in view of Teletext's "Telesoftware" as discussed in the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger.

The examiner takes "Official Notice" that it was notoriously well known in the art to have downloaded gaming "software" to the receiving stations, e.g. as described in Jeffers et al., via the standard "pages" of a conventional Teletext service. In fact, at the time of applicant's alleged invention, the "Telesoftware" terminology had already been coined by those of ordinary skill in the art specifically for the purpose of referring to this process of downloading computer "software", e.g. including video gaming software, via standard Teletext pages of standard Teletext services [SEE: lines 34-40 in the first column on page 558 of Hedger; lines 18-22 in the first column on page 560 of Hedger; lines 42-47 in the second column on page 561 of Hedger; lines 1-37 in the first column on page 562 of Hedger; lines 1-22 in the second column on page 562 of Hedger; lines 13-26 in the first column on page 565 of Hedger; etc,...]. The examiner maintains that it would have been obvious to have downloaded the video game "software" to the receiver stations in the modified system of Baer via Teletext's "Telesoftware", wherein:

- 1) The Teletext pages containing the "Telesoftware" video games would necessarily have been transmitted from the transmitter station under control of the Teletext "page" transmission schedule "instructions" which were inherently held within the Teletext system's database computer [note lines 42-47 on in the second column on page 561 of Hedger];
- 2) The Teletext pages containing the "Telesoftware" video games could obviously have been transmitted in vacant lines of the analog video background signals to which each was related thereby forming a single combined transmission signal [note lines 3-7 in the first column on page 558 of Hedger]; and
- 3) The Teletext page or pages containing the "Telesoftware" video game which was to be played at the receiver station would necessarily have been decoded at said receiver station, e.g. in the manner of all Teletext pages, via the computer controlled Teletext decoder of the receiver station so as to extract and assemble all portions of the gaming software to be played that were contained within in the discrete packet signals of the respective Teletext page or pages [e.g. note: lines 34-40 of the first column on page 558 of Hedger; lines 1-6 in the first column on page 562 of Hedger; lines

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7-37 in the first column on page 562 of Hedger; and lines 1-22 in the second column on page 562 of Hedger].

D) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzaki et al. [JP # 56-116385] in view of article “Touch-Tone’ Teletext: A Combined Teletext-Viewdata System” by Robinson et al.

I. The showing of Fukuzaki et al.:

Fukuzaki et al. illustrates a conventional TV receiving device comprised:

1) receiving circuitry (@ 1 and 2 of figure 1) for **“receiving a plurality of signals”** from at least one external TV transmission signal source (not shown in the figures), wherein the received signals included:

A) A standard analog TV signal which inherently included an analog video signal component and an analog audio signal component; and

B) Embedded digital signals representing pages of Teletext data;

2) computer/controlled storing circuitry (@ figure 2) **“for storing first mediums”** comprised of respective **“portions”** of the received digital signals, wherein each “portion” corresponds to a respective page of the received Teletext data;

3) processing circuitry (@ 4) for processing a **“a second medium”** comprised of the analog TV signal;

4) said computer controlled storing circuitry (@ figure 2) for **“coordinating a presentation”** of one of the first stored medium portion (i.e. a selected one of the stored Teletext pages) with the presentation of the second medium (i.e. the analog TV signal) based on a page selection input which was provided from the user (@ keyboard 9); and

5) circuitry (@ 5 and 6 of figure 1) for outputting a multimedia presentation to the user wherein the multimedia presentation, e.g. at least inherently, comprised the video component of the received analog TV signal, the audio component of the analog received analog TV signal, and overlaid character/graphic images representing the user selected page of stored Teletext data.

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II. Differences:

Claim 2 differs from the showing of Fukuzaki et al. only in that claim 2 recites a step for determining “content” of the “second medium” to which the recited step of “coordinating” is responsive.

III. Obviousness:

The publication by Robinson et al. shows that it was well known in the art for broadcasted TV programming to have included a “content” which referred the viewer to specific program related Teletext pages which could be viewed by the viewer in order to obtain further detailed information relating to subject matter covered by the TV programming [note lines 20-29 in the first column on page 300]. The examiner maintains that it would have been obvious to one of ordinary skill in the art for the TV receiver of Fukuzaki et al. to have received conventional analog TV programming of the type described in Robinson et al. and, in response to “content determined” thereof, to have selected and displayed the referenced Teletext pages having a content related thereto.

E) CLAIMS 3, 5-16, 20-24, 26, 29, 30, 37, 43, and 51-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzaki et al. [JP # 56-116385] in view of article “‘Touch-Tone’ Teletext: A Combined Teletext-Viewdata System” by Robinson et al. for the same reasons that were discussed for claim 2 above. The following is noted:

With respect to claims 7-10, and 15: As noted above, Robinson et al. evidenced the fact that it was known/conventional for TV news programs to have referred their viewers to program related Teletext pages which provided further details of the news stories being reported on [e.g. lines 20-29 in the first column on page 300]. The examiner maintains that it would have at least been obvious for the news caster to have referenced these Teletext paper verbally; e.g. via the audio component of the analog TV signal.

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F) Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. [JP 62-60378].

I. The showing of Nakazawa et al.:

As is shown in figure 1, Nakazawa et al. disclosed a multimedia display system which comprised:

- 1) A MODEM (@23) which operated during an initialization step to “receive”/download a “**first signal**” from a “**remote videotex transmitter station**” (@22), wherein the first signal comprised “Telesoft” representing a TV program schedule/guide menu;
- 2) Circuitry (15,16,25, 26) for “**outputting the first signal**” representing TV program schedule/guide menu for display on CRT device (3);
- 3) A keyboard (@2) for “**receiving a user response**” based on the outputted first signal, wherein said inputted user response represented a TV program code corresponding to a desired TV program listed within the displayed TV program schedule/guide menu;
- 4) A memory 16 containing information (e.g. figure 3) for “**identifying**” TV program “**content**” of said first signal;
- 5) Searching circuitry (@17) for searching the information contained in memory 16 (e.g. that of figure 3) using the program code which was inputted by the user by, e.g. *at least obviously*, “**comparing**” a “**content**” that was identified by the information that was contained in memory 16 with the user entered program code; e.g. wherein, once entered, the user entered code was inherently been “**stored**” in some manner [i.e. implicit in the fact that the entered code was held and used by the system as opposed to being immediately lost after entering];
- 6) A tuning circuitry (@ 12 and 13) for “**tuning the system to receive a second signal**” based on comparing step performed during the searching process wherein the second signal represents said desired TV program which was listed within the displayed menu; and
- 7) circuitry (@ 15 and 3) for outputting a combined multimedia comprised of the displayed videotex TV program “menus” and the desired/selected/displayed TV programming.

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G) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. [JP 62-60378]. Note:

- 1) The discussion of Nakazawa et al. with respect to the limitations of claim 33 above; and
- 2) That, with respect to the limitations of claim 2:
 - a) That the TV programming menu data of figures 3 and 8, e.g. that which is downloaded to the receiver from an external videotext server, constitutes the “**first medium**” of claim 2;
 - b) That the stored videotext menu data, e.g. the “first medium”, is displayed and is used to “**determine/identify content**” of analog TV programming signals which are being received by antenna (11), wherein the one of the received analog TV programming signals which is being passed by the tuner (12) constitutes the recited “**second medium**” of claim 2.

H) CLAIMS 3, 5-6, 11-18, 26-28, and 37-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. [JP 62-60378] for the same reasons which were set forth for claim 2 above.

With respect to claims 17, 18, 27, 28 and 47: The examiner maintains that it would have been obvious to one of ordinary skill in the art to have provided a conventional “controlled” VCR at the receiver station which was described by Nakazawa et al. in order to have allowed the selected TV programming which was currently being received to have been recorded too. Here, it is important to note that there is nothing in these claims which requires the operation of the VCR to have been actually been “controlled” by the recited processing so as to have performed this recording “automatically” (i.e. the claims only require that the “content” of the programming which is being recorded by the controlled VCR to have been of a content which had been “determined” by the menu/system first].

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I) Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. [JP 62-60378] in view of Reiter et al. [US #4,751,578].

Nakazawa et al. disclosed a multimedia display device as was set forth above with respect to claim 33. The following is noted:

1) It is presently unclear as to whether the components of the multimedia presentation in Nakazawa et al., e.g. namely the program “menus” and the selected TV programming, are displayed simultaneously or sequentially via the switching circuitry (15 of figure 3). In any event, Reiter et al. has been cited to evidence the fact that using simultaneous and sequential display methods for displaying such multimedia components were notoriously well known and obvious alternative [e.g. note lines 18-21 of column 3 of Reiter et al.]; and

2) In the system disclose by Nakazawa et al., the TV program scheduling information was conveyed to the receiver via videotex “Telesoft” data which was transmitted to the receiver via conventional phone lines. Reiter et al. evidences the fact that it was notoriously well known and obvious to have transmitted such schedule information by many other ways/methods [note lines 29-56 of column 4 in Reiter et al.].

J) CLAIMS 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over conventional audience metering devices/system as exemplified by Weinblatt [US Patent #4,695,879] and Nakazawa et al. [JP 62-60378].

I. The showing of Weinblatt:

The examiner takes “Official Notice” that the need to have monitored the TV viewing habits of individuals and individual households was notoriously well known in the art. As is exemplified by Weinblatt (note figures 1), such monitoring systems were known to have comprised: 1) circuitry for detecting and storing information pertaining to the TV channels/programs being viewed by a given TV receiver at any given time; and 2) a modem (16) for automatically transmitting the stored information from the receiver location to a remote collection site via the phone lines. The examiner maintains that the recitations of claims 34-36 appears to be directed to, and met by, such conventional TV monitoring system structure/operation.

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II. The showing of Nakazawa et al.:

As is shown in figure 1, Nakazawa et al. disclosed a conventional TV receiver. For reasons set forth above, the limitations of claim 33 are met by this conventional TV structure.

III. Obviousness:

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have used a conventional TV monitoring system, e.g. of the type which was illustrated by Weinblatt, to have monitored the use of a conventional TV receiver of the type disclosed in Nakazawa et al.; e.g. to have used the monitoring system and the TV receiver for the conventional uses for which they were respectively intended!

K) CLAIMS 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zaboklicki [DE 2904981] as translated by both the PTO and Applicant (applicant's translation being the cleaner and more easily understood version thereof).

I. PREFACE:

The examiner takes Official Notice that the term "Telesoftware" was originally coined specifically for the purpose of referring to "computer software/programs" which were conveyed/downloaded through a TV transmission network via standard Teletext pages of a standard Teletext service⁶³. The term "Telesoftware" was unquestionably used within the Zaboklicki document in this conventional fashion; e.g. as is evident by the fact that "56" in figure 3 of Zaboklicki is identified as a "Teletext decoder" which comprises circuitry ("40") for extracting and outputting "Telesoftware"

[SEE: the descriptions for elements "3", "40", "41", "56" under the heading "List of Reference Numbers" *which appears in both of the obtained translations of record*].

⁶³ SEE the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by

Hedger (e.g. the first column of page 560).

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II. The showing of Zaboklicki (summarized):

In Zaboklicki, a plurality of “interactive” multimedia presentation were transmitted from a central transmitter station to a plurality of receiving stations wherein each of these transmitted “interactive” multimedia presentations was comprised of downloaded “Telesoftware” and a “pool” of multimedia programming segments/”fragments”. These multimedia programming segments/”fragments” clearly included:

- 1) repetitively transmitted moving picture segments/”fragments” carried via normal TV channels;
- 2) repetitively transmitted audio segments/”fragments” carried via normal radio channels;
- 3) repetitively transmitted pages of Teletext character/graphic carried as part of a standard program related Teletext service; and
- 4) locally retrieved video signal provided from storage devices located within each of the receiving stations.

In operation, viewers at respective ones the receiver stations chose the “interactive” multimedia presentation that they wished to view. At that point, the computer within their receiver station received, loaded and ran a “Telesoftware” computer program which was associated with the selected “interactive” multimedia presentation. This running “Telesoftware” provided the computer at each receiving station with the intelligence it needed to control the station to have sequentially selected, identified, extracted, and presented a series of segments/”fragments” from the respective “pool” of multimedia programming segments/”fragments” based on the inputs/responses entered by respective viewers. In this way, each receiver station was capable of generating its own “unique” multimedia presentation, based on its own viewer’s “unique” inputs/responses, while simultaneously receiving the same “pool” of multimedia programming segments/”fragments” as the other receiving stations. And because all of the receiving stations received the same “pool” of multimedia programming segments/”fragments” at the same time, an unlimited number of receiving stations could each produce a “unique” versions of a given multimedia presentation without costing the TV network any additional bandwidth. Namely, the Zaboklicki “interactive” system configuration was advantageous over the “prior art” of its time in that it allowed all of the receiver stations to receive and work-off the same multimedia “transmission” thereby minimizing the bandwidth that was required to

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convey the multimedia "transmission" to the plurality of receiver stations while, at the same time, allowing each station to independently assemble a selected group of the received segments/"fragments" into a version of the multimedia presentation that was "uniquely" tailored specifically to the user's inputs (as well as the user's rate of input); i.e. an enhanced ability provided by the intelligence programmed into each of the receiving stations via the computer software that was downloaded to the stations as "Telesoftware".

III. Zaboklicki (as applied against claims 24 and 25):

In Zaboklicki, each of the receiving stations comprised:

- 1) A computer (e.g. @6,7,39, and 40 of figure 3) that received "Telesoftware" and program segment/"fragment" identifiers from a circuitry (@40 of figure 3) of a Teletext decoder (@56 of figure 3), wherein this received signaling gave the computer the "know how" to sequentially select, find, extract, and output segments/"fragments" from the provided "pool" of segments/"fragments" which created a uniquely tailored/"**coordinated**" interactive multimedia presentation at the receiving station in question. This "signaling" corresponds to the "**control signal**" that is recited in claim 24.
- 2) Means for **receiving** the "pool" of multimedia program segment/"fragment" which, as noted above, included different **media** including standard **television-type programming** and non television-type programing such as **Teletext character graphic image data**; and
- 3) A **printer** (@ element 37 of figure 3) and, at least *obviously*, a **speaker** (e.g. needed to display the audio/radio output selected by element 43 of figure 3) for presenting respective portions of the multimedia presentations to the viewer.

L) CLAIMS 2-16, 20-23, 26, 29, 30, 33-40, 43-46, 48, 49, and 51-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zaboklicki [DE 2904981] for the same reasons that were set forth for claims 24 and 25 above.

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M) CLAIMS 17, 18, 27, 28, 41, 42, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zaboklicki [DE 2904981] for the same reasons which were set forth for claims 2-16, 20-23, 26, 29, 30, 33-40, 43-46, 48, 49, and 51-60 above, further in view of Haefner et al. [DE 2,550,624].

1) In the system disclosed by Zaboklicki, at least the selected Teletext pages were stored within RAM 44 of Teletext decoder 54 during the presentation process. However, the selected TV and/or audio/radio programming was not stored during the presentation process (i.e. as appears to be claimed).

2) Haefner et al. disclosed an "interactive" multimedia presentation system similar to that which was disclosed by Zaboklicki in that Haefner et al. also recognized the advantage which was provided by giving each receiver station the intelligence that was needed to create a unique multimedia presentation from a common "pool" of multimedia programming segments/fragments [NOTE: the table which appears at the top of page 8 of the translation; lines 5-10 on page 8 of the translation; lines 3-15 on page 12 of the translation; etc,...]. However, unlike Zaboklicki, Haefner et al. recognized that large bandwidth savings could be achieved by downloading and storing the entire "pool" of multimedia segments/fragments at the receiver station location whereby the locally provided intelligence would be responsible for assembling the tailored presentation by selectively retrieving ones of the stored segments/fragments [NOTE: the table which appears at the top of page 8 of the translation; lines 5-10 on page 8 of the translation; lines 3-15 on page 12 of the translation; etc,...].

3) In view of the Haefner et al. showing, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the receiver station structure disclosed by Zaboklicki with local storage devices into which the entire "pool" of program segments/fragments could be downloaded and selectively retrieved under control of the computer.

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SECTION IX: other issues:

>The examiner notes that the art of record has been applied to the extent of the examiner's understanding in view of the extensive section 112 issues cited above.

2) Any inquiry concerning this communication should be directed to **David E. Harvey** whose telephone number is **(703) 305-4365**. The examiner can normally be reached Monday-Friday between the hours of 9:30 AM and 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Andrew Faile, can be reached at (703) 305-4380.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. Sixth Floor (Receptionist).

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose number is (703) 306-0377.

DEH 4/02


DAVID E. HARVEY
PRIMARY EXAMINER

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APPENDIX A- ["standardized" Teletext (exemplified)]

A. 3/26/81

UK TELETEXT SYSTEM525 LINE 60 FIELD SYSTEMS APPLICATIONS

The characteristics of broadcast signals according to the UK Teletext System are defined in the form of a set of decoder response levels. Some features are common to all levels and other features apply optionally.

Decoders responding at level 1 provide a set of 96 alphanumeric characters and two sets of mosaic graphic characters, these latter including 32 alphanumeric characters. A full range of serial display attributes, that include seven display colours are available.

Optional features applicable to all levels include the designation of linked pages for automatic storage and a page confidence check. Further optional features are the designation of an initial page to be selected automatically at switch-on and information related to equipment control rather than display. It is envisaged that this data would apply to a Television Network or Channel generally and not only to the teletext service.

Decoders responding at level 2 include the full ISO character repertoire, additional serial and the full range of parallel attributes. Off text area display attributes are defined on a full screen and full row basis. Means are provided to redefine the national option characters in the primary character set on a page or magazine basis. A smoothed mosaic graphics set and a large range of pastel colours are included.

Level 3 introduces Dynamically Redefinable Character Sets (DRCS) and associated redefinable display colours from a very large range. Such down loaded character sets may be used to extend the character sets of level 2 or to display a complete page.

Page addresses are reserved for levels 4 and 5 that employ respectively alphageometric and alphaphotographic coding. These levels will be fully defined when agreement concerning the coding procedures has been achieved.

Page addresses have also been reserved for the transmission of Telesoftware. This concept includes computer programmes and similar data not for direct display.

CONTENTS

<u>Sections</u>	1. to 10.	Characteristics applicable to all levels.
	11.	Response of decoders at level 1.
	12. & 13	Optional features applicable to all levels.
	14.	Response of decoders at level 2.
	15. & 16	Response of decoders at level 3.
	17.	Response of decoders at level 4.
	18.	Response of decoders at level 5.
	19.	Telesoftware.

140.

UK TELETEXT SYSTEM

525 LINE 60 FIELD SYSTEM M APPLICATION

Characteristics of Broadcast Signals

1. TV Lines Usable as Data Lines	Subject to availability.
1.1. When Multiplexed with a TV Picture Signal	Lines 10 to 16 of both fields.
1.2. When Not Multiplexed With a TV Picture Signal	Any, except field sync and equalising pulse periods. See also Section 13.2.2.
2. Data Identification	Clock Run-in and Framing Code in appropriate time slot, see section 9.
3. Signalling Method	Binary NRZ.
4. Signal Levels 0 level 1 level	Nominal Values currently proposed: Black level $+2\%$ $70(+6)\%$ of the difference between black level and peak white level.
5. Bit Rate	Currently proposed value: $364 \times$ nominal fH, $8/5 \times$ FSc (5.727272 Mbits/s)
6. Data Timing Reference Point	Peak level of penultimate 1 of clock run-in.
7. Spectrum of Data Pulse	Skew symmetrical about $0.5 \times$ bit rate, substantially zero by 4.2 MHz.
8. Data Line Content	290 bits as 37 bytes of 8 bits each.
9. Synchronism	See figure 1.
9.1. Clock Run-in (bit sync)	Bytes 1 & 2, begins 10101010....even parity.
9.2. Framing Code (byte sync)	Byte 3, 11100100, even parity.
10. Addressing	See figures 1 and 2.
10.1. Packet Numbers in Form X/T/Y For All Data Lines.	Bytes 4 & 5 Hamming protected. <u>2 binary digits</u> for magazine number X <u>1 binary digit</u> for tabulation T, 0 corresponds left hand side of display and 1 corresponds to right hand side of display. <u>5 binary digits</u> for display row number Y. 256 unique packets available.
10.2. Page Header Data Lines	Packet numbers X/0/0
10.2.1. Page Number	Bytes 6 & 7 Hamming protected, 256 available.
10.2.2. Page Sub-Code	Bytes 8, 9, 10, 11 Hamming protected, 8192 available. Byte 9, bit 8 is control bit C4 and byte 11 bits 6 and 8 are respectively control bits C5 and C6, see Section 11.

11. Response of Decoder at Level 1

Decoder responds to:

a) Packet numbers X/0/0 to X/T/23.

See Note below.

b) Pages 00 to 99 coded BCD.

c) 3200 Page Sub-Codes. The four digits of the Page Sub-Code can take values in the ranges 0 to 3, 0 to 9, 0 to 7 and 0 to 9, respectively.

d) optionally packet numbers X/T/27 (and the contents of packet number X/T/24 and X/T/25) and packet number 4/1/30.

11.1. Control Bits in Page Header

Active on being set to 1. C4 to C14, bytes 12 and 13 contain C7 to C14 Hamming protected see Section 10.2.2. for C4 to C6.

11.1.1. C4 Erase Page

Always followed by a 16 ms interval before transmission of further data.

11.1.2. C5 News Flash

All information to be boxed.

11.1.3. C6 Sub-Title Page

All information to be boxed.

11.1.4. C7 Suppress Header

Header to be suppressed (display of clock time optional).

11.1.5. C8 Update Indicator

Following data may be limited to include only the updated part of the page.

11.1.6. C9 Interrupted Sequence

Associated page is not in numerical order of page sequence.

11.1.7. C10 Inhibit Display

Data not to be displayed

11.1.8. C11 Magazine Serial

Magazines transmitted one at a time in sequence.

11.1.9. C12, C13, C14 Basic Character Set Select.

No response.

11.2. Page Display

11.2.1. Rows Displayed

Up to 24. When tabulation bit (see Section 10) is set to 0 data packets 0 to 23 correspond to the left hand side of display rows 0 to 23. With the bit rate of Section 5, 32 character spaces are included. When the tabulation bit is set to 1, the data packet number corresponds to the first row number of a group of right hand sides of display rows. With the data rate of Section 5 the right hand sides of four display rows, each including 8 character spaces are carried by 16 packets. In order to preserve the integrity of packets carrying the page header, the right hand sides of rows 0 to 3 have the packet numbers X/1/1 and there is no response to packets numbered X/1/0.

11.2.2. Character Spaces in Rows 1 to 23

40, transmitted in 2 sections, each left to right

11.2.3. Character Spaces in Page Header, Row 0

32, transmitted in 2 sections, each left to right

11.3. Character Bytes

7 bits plus odd parity define a display or control character occupying a character space.

11.4. Character Sets for Display

- a) 94 alphanumeric characters plus SPACE and DELETE, see figure 3.
 - b) 63 contiguous mosaic graphics characters, plus SPACE and 32 alphanumeric characters.
 - c) 63 separated mosaic graphics characters, plus SPACE and 32 alphanumeric characters.
- See figure 4 for mosaic character set.
Selection between a), b) and c) is by means of control characters, see Section 11.5.

11.5. Control Character Set, 'spacing controls' Including Display Attributes

Set of 32 control characters, 5 unallocated for level 1, which affect the display attributes. The receiver defaults to certain attributes at the start of each row. Some control characters have effect immediately, others at the following character-space. Certain control characters have complementary forms. See figure 5.

11.5.1. Foreground Colour

White, yellow, cyan, green, magenta, red or blue. It is invoked by selection of alphanumeric or mosaic display mode, 7 pairs of control characters, see figure 5.

11.5.2. Background Colour of a Character Space - Black Background

New Background

Invoked by the control character 'black background'.

This control character causes the foreground colour then obtaining to be adopted as the background colour.

11.5.3. Contiguous Mosaic Graphics

Mosaic blocks adjoin one another.

11.5.4. Separated Mosaic Graphics

Each mosaic block is surrounded by a border of the background colour.

11.5.5. Hold Mosaic

A held mosaic character is displayed in place of a SPACE corresponding to a control character. The held character is defined only during the mosaic mode. It is the most recent character with bit 6 = 1 in its code, providing that there has been no intervening change in alphanumeric/mosaics or normal/double height display modes. It is displayed in the original contiguous or separated mode.

11.5.6. Conceal

Following characters are to be displayed as SPACE until 'revealed' by a decoder or user operation.

11.5.7. Flash

Following characters are to be displayed normally or as SPACE in alternation, under the control of a timing device in the decoder.

11.5.8. Boxing

Part of a page to be inset into the normal television picture. Protection against false operation is provided by double transmission of the control characters, with the effect taking place between them.

11.5.9. Double Height

Characters are to be stretched vertically to occupy in addition the corresponding character space in the display row with the next higher address, that row displays the same background colour as the previous row.

12. Ancilliary Text Related Data	Optional Features.
12.1. Linked Pages Related to a Given Page and Intended for Automatic Storage in the Decoder Memory	Data carried by packet X/0/27 See figure 2.
12.1.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive as Sections 9 and 10.
12.1.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection Codes 0000 to 0011 designate linked page function and are used repetitively as sequence labels for a number of packets X/0/27. There is no response to other codes.
12.1.3. Linked Page Addresses	Bytes 7 to 36 used as 5 groups of 6 bytes. Each group of 6 bytes defines a linked page address.
12.1.3.1. Data Group Format Defining a Linked Page	6 bytes, see figure 2 for bit sequence: Relative Magazine Number.....3 bits Page Number.....8 bits Page Sub-Code.....13 bits Hamming Protection.....24 bits NOTE There is no response to the data in byte 37.
12.2. Basic Page Check Word	Data carried by packet X/1/27.
12.2.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive as Sections 9 and 10.
12.2.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection. Code 0000 designates basic page check word function
12.2.3. Basic Page Check Word	Bytes 7 and 8 contain a Cyclic Redundancy Check on the data in packets X/0/0 and X/T/1 to X/T/25. For check word generation see figure 13. No response to bytes 9 to 37.
13. Broadcasting Service Data Packet	Packet 4/1/30 transmitted approximately once per second. See figure 2.
13.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive as Sections 9 and 10.
13.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection. First data bit set to 0 designates multiplexed function as in Section 1.1. First data bit set to 1 designates non-multiplexed function as in Section 1.2. Data bits 2, 3 & 4 set to 0 designate functions in Sections 13.3. and 13.4. There is no response to other codes.
13.3. Program or Network Label	Bytes 7 and 8 containing 16 bits data with at least one data transition included.
13.4. Initial Teletext Page for Storage in Decoder Without User Action	Bytes 9 to 14, see figure 2 for bit sequence: Relative Magazine Number.....3 bits Page Number.....8 bits Page Sub-Code.....13 bits Hamming Protection.....24 bits
13.5. <u>Data for Equipment Control</u> <u>Includes Time and Date in</u> <u>UTC with Local Offset and</u> <u>Program Related Data</u>	Bytes 15 to 37. Where appropriate the coding is to be the common codes of the basic character set, see Sections 11.4. and figure 3. For data format see figure 12.

14. Response of Decoder at Level 2

Decoder responds as level 1 plus packets X/0/26 and X/0/28. See figure 2.

14.1. Control Bits in Page Header

As level 1, see Section 11.1.

14.1.1. C4 to C11

Response as level 1 see Sections 11.1.1. to 11.1.8.

14.1.2. C12, C13, C14 Basic Character Set Selection

Decoder displays text using selected basic character set as follows:

Alphabet	C12	C13	C14
1) English, US version (see figure 3)	0	0	0
2) To be defined	0	0	1
3) To be defined	0	1	0
4) To be defined	0	1	1
5) To be defined	1	0	0
6) See Section 14.7.	1	0	1
7) See Section 14.7.	1	1	0
8) Reserved	1	1	1

14.2. Page Display

14.2.1. Rows Displayed

As level 1, Section 11.2.1., exceptionally 24 complete rows, see Section 14.9.

14.2.2. Character Spaces in Rows 1 to 23

As level 1, see Section 11.2.2.

14.2.3. Character Spaces in Row 0 Page Header

As level 1, see Section 11.2.3.

14.3. Character Bytes

14.3.1. Data Packets X/0/0 to X/T/24, X/0/27 & 4/1/30

As level 1, see Sections 11.3., 12. and 13.

14.3.2. Data Packets X/0/26

See Sections 14.4. and 14.6. and figure 2.

14.3.3. Data Packets X/0/28

See Section 14.4. and 14.7. and figure 2.

14.4. Character Sets for Display

a) Includes Full Latin Based repertoire of ISO a 7 basic alphanumeric character sets or 94 characters each plus SPACE and DELETE, selected by Control Bits as in Section 14.1. Each extendable by the data in packets X/0/26, see Section 14.6. and redefinable by the data in packets X/0/28, see Section 14.7.

b) Contiguous mosaics as level 1, see Section 11.4. and Smoothed mosaics, see Section 14.6.16

c) Separated mosaics as level 1, see Section 11.4. and Smoothed mosaics, see Section 14.6.16.

Selection between a), b) or c) is by means of control characters and the data in packets X/0/26, see Section 14.6. and the data in packets X/0/28, see Section 14.7.

14.5. Control Character Set for Spacing Controls Including Display Attributes

Set of 32 control characters, 1 unallocated for level 2. Action as for level 1, see Section 11.5., except as defined in Sections 14.5.1. to 14.5.5. See also figure 5.

14.5.1. Foreground Colours	As level 1 plus black, see Section 11.5.1. and figure 5.
14.5.2. Underline Alphanumerics/ Separated Mosaic Graphics	Alphanumeric characters succeeding this control character are displayed underlined and mosaic characters are displayed in the separated mode as in Section 11.5.4. until the end of a display row of the receipt of a Cancel-Underline/ Contiguous Mosaic Graphics control character.
14.5.3. Cancel-Underline Alpha- numerics/Contiguous Mosaic Graphics	See Section 14.5.2.
14.5.4. Reduced Intensity	The background of alphanumeric characters and the foreground of mosaic characters are displayed at reduced intensity until the end of a display row or the second transmission of the colour control character then obtaining. NOTE It is recommended that this control character should reduce the displayed luminance to a subjective level approximately 50% of that obtaining in the normal intensity mode.
14.5.5. Cancel Reduced Intensity	See Section 14.5.4.
14.6. Character Set Extension and Non-Spacing Control Characters Including Additional Display Attributes	Uses packet X/T/26 to over write any character-space. The original character and attribute condition is the editor defined fall-back for level 1 decoders.
14.6.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5, see Sections 9 and 10.
14.6.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection Codes 0000 to 1110, with the tabulation bit T as most significant bit, as sequence codes for a number of packets X/26 unto 30. Codes T 1111 have no response
14.6.3. Data Groups	Bytes 7 to 36 used as 10 groups of 3 bytes each, a, b and c. See figure 2 for bit sequence. <div style="margin-left: 40px;"> <u>a and b</u> (6 bits for display address (5 bits for mode description (5 bits Hamming protection <u>c</u> (7 bits data (1 bit odd parity Byte 37 has no response. </div>
14.6.4. Display Addressing	6 display address bits, as in Section 14.6.3. These provide 64 combinations. The decimal values 0 to 39 specify character spaces along a given display row and the decimal values 40 to 63 specify a particular display row. A character space is thus defined by a data group including a row address followed by one or more character position data groups.

<p>14.6.5. Full Screen Colour Including Borders Outside Normal Text Display Area (1)</p>	<p>Invoked when the Mode Description bits of any Row Address data group are set to 00000. Data bits 5, 6 and 7 activate respectively the primary colours red, green and blue. Thus, for example bit values 000 correspond to black and 110 to yellow. Data bit 4 invokes reduced intensity, bits 1 to 3 are set to 0.</p>
<p>14.6.6. Full Row Colour Including Borders Outside Normal Text Display Area (1)</p>	<p>Invoked when the Mode Description bits of the appropriate Row Address data group are set to 01000. Data bits 5, 6 and 7 activate respectively the primary colours red, green and blue. Thus, for example bit values 000 correspond to black and 110 to yellow. Data bit 4 invokes reduced intensity, bits 1 to 3 are set to 0.</p>
<p>14.6.7. Full Screen Pastel Colours Including Borders Outside Normal Text Display Area (1)</p>	<p>Invoked when the Mode Description bits of any Row Address data group are set to 00001. Data bits 1 to 3 and 5 define 16 pastel colours. Bit 4 invokes reduced intensity, see figure 8.</p>
<p>14.6.8. Full Row Pastel Colours Including Borders Outside Normal Text Display Area (1)</p>	<p>Invoked when the Mode Description bits of the appropriate Row Address data group are set to 01001. Data bits 1 to 3 and 5 define 16 pastel colours. Bit 4 invokes reduced intensity, see figure 8.</p>
<p>NOTE 1 Background colours when defined explicitly and foreground colours take precedence over Full Row colours and Full Row colours take precedence over Full Screen colours.</p>	
<p>14.6.9. Accented Characters from Supplementary Character Set</p>	<p>For display at a character-space addressed as in Section 14.6.4. The Mode Description bits set at the range of values 10000 to 11111 respectively define accents for column 4 of the code table figure 6 in ascending numerical order. The associated character from the primary character set of figure 3 is defined by the 7 data bits.</p>
<p>14.6.10. Special Characters from Supplementary Character Set</p>	<p>For display at a character-space addressed as in Section 14.6.4. The Mode Description bits are set at 01111. The 7 data bits define a character from columns 2, 3, 5, 6 or 7 from the supplementary character set of figure 6.</p>
<p>14.6.11. Alphanumerics, Normal Size with Colour and Flashing Attributes (2)</p>	<p>For normal size alphanumeric display at a character-space addressed as in Section 14.6.4. The Mode Description bits are set to 00000. Data bits 1, 2 and 3 activate respectively the foreground primary colours red, green and blue. Thus for example bit values 000 correspond to black, 110 to yellow and 111 to white. Bit 4 activates Flashing. Bits 5, 6 and 7 define the background colour in the same manner as in the case of bits 1, 2 and 3 for the foreground colour.</p>

14.6.12. Alphanumerics, Double Height with Colour and Flashing Attributes (2)	As Section 14.6.11. except the Mode Description bits are set to 00001. Characters to be stretched vertically as in Section 11.5.4.
14.6.13. Alphanumerics, Double Width with Colour and Flashing Attributes (2)	As Section 14.6.11. except the Mode Description bits are set to 00010. Characters to be stretched horizontally to occupy in addition the next character-space.
14.6.14. Alphanumerics, Double Size with Colour and Flashing Attributes (2)	As Section 14.6.11. except the Mode Description bits are set to 00011. Characters to be stretched vertically and horizontally as in Sections 14.6.12. and 14.6.13
14.6.15. Block Mosaics, Normal and Contiguous with Colour and Flashing Attributes (2)	For normal (not smoothed) mosaic display at a character-space addressed as in Section 14.6.4. The Mode Description bits are set to 00110. Data bits 1, 2 and 3 activate respectively the foreground primary colours red, green and blue. Thus for example bit values 000 correspond to black, 110 to yellow and 111 to white. Bit 4 activates Flashing. Bits 5, 6 and 7 define the background colour in the same manner as in the case of bits 1, 2 and 3 for the foreground colour.
14.6.16. Block Mosaics, Smoothed and Contiguous with Colour and Flashing Attributes (2)	As Section 14.6.15. except the Mode Description bits are set to 00111. For the smoothed mosaic graphics character set see figure 9.
14.6.17. Underline Alphanumerics or Separated Mosaics (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by the Mode Description bits set to 00110 and Data bit 1 set to 1.
14.6.18. Boxing (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by the Mode Description bits set to 00110 and Data bit 2 set to 1.
14.6.19. Conceal (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by Mode Description bits set to 00110 and data bit 3 set to 1.
14.6.20. Reduced Intensity Foreground and Background (3)	Activated at a character-space addressed as in Section 14.6.4. Invoked by Mode Description bits set to 01100 and Data bit 4 set to 1 for foreground and Data bit 5 set to 1 for background.
14.6.21. Pastel Colours in Foreground and Background and Flashing	Activated at a character-space addressed as in Section 14.6.4. Invoked by the Mode Description bits set to the range 01000 to 01011. The Mode Description bits and the Data bits define 16 foreground and background colours and the associated Flashing attribute. See figure 7.

NOTE 2 The effect of these attribute controls persists to the end of a row or until overridden by a further attribute control

NOTE 3 see page 9.

14.6.22. Termination Marker

14.6.22.1. Packet X/0/26 and X/0/28 Check Word

NOTE 3 These attribute controls are mutually additive and are associated with an attribute invoked as in Sections 14.6.11 to 14.6.16. Their effect is as in NOTE 2 and they may also be overridden by a transmission of the data group with the corresponding data bit set to 0.

Since more than one packet X/0/26 may be needed to display a given page, a terminator is provided by setting the Mode Description bits to 11111 in the final row address data group of the final packet X/0/26.

The two data bytes that follow a packet X/0/26 termination marker contain a Cyclic Redundancy Check on the data in packets X/0/26 and X/0/28. The process of generating the check word is identical to that of Section 12.3.3., using the data in packets X/0/26 followed by X/0/28. The sequence is completed by assuming the presence of the character SPACE (2/0) repeated as necessary. When only a packet X/0/28 carries data, only the termination marker and the C.R.C. check word will be carried by packet X/0/26.

14.7. Basic Character Set Dynamic Redefinition

In addition to the fixed alphabets 1 to 5 listed in Section 14.1.2. the 10 blank positions in the code table of figure 3 may be redefined on a page or magazine basis using the data contained in packet X/0/28.

In the packet associated function packets X/0/28 follow packet X/0/0 of the page in transmission sequence of that magazine. In the magazine based function it may follow any packet of that magazine.

Page Header Control bits C12, C13 and C14 set respectively to 1, 0 and 1 invoke page associated function.

Page Header Control bits C12, C13 and C14 set respectively to 1, 1 and 0 invoke magazine associated function.

14.7.1. Clock Run-in, Framing Code and Packet Address

Bytes 1 to 5 inclusive, as in Sections 9 and 10.

14.7.2. Designation Code

Byte 6, 4 bits data plus 4 bits Hamming protection Magazine associated function designated by data bits set to 0000. Page associated function designated by data bits set to 0010.

14.7.3. Data Groups

Bytes 7 to 36 used as 10 groups of 3 bytes each, a, b and c:

<u>a and b</u>	(11 bits data 5 bits Hamming protection)
<u>c</u>	(4 bits data 4 bits Hamming protection)

14.7.3.1. Character Code Table Addressing

The sequence of 10 data groups defined in Section 14.7.3. represents a sequence of 10 data words each containing 7 + 7 bits. Each word redefines one of the blank positions in the code table of figure 3, in columns, top to bottom, from position 4/0 to position 7/14 proceeding in time along the packet X/0/28.

14.7.3.2. Character Coding	<p>The allocation of the data bits of Section 14.7.3. is as follows:</p> <p><u>Bit 1:</u> always set to 0.</p> <p><u>Bits 2 to 8:</u> represent a character from the primary set of figure 3.</p> <p><u>Bits 9 to 14:</u> represent a character from the supplementary set of figure 6. When this represents an accent it is combined with the character from the primary set defined by bits 2 to 8. When a special character from the supplementary set is defined, bits 2 to 8 are set to represent the character SPACE (2/0).</p> <p><u>NOTE</u> There is no response to byte 37 of packet X/0/28 in this mode.</p>
14.8. Pastel Colours Dynamic Redefinition Page Associated	<p>The 16 pastel colours of Sections 14.6.6., 14.6.7 and 14.6.21. may be redefined on a page basis using the data contained in packet X/0/28. Packets X/0/28 follow packets X/0/0 of the page in transmission sequence of that magazine.</p>
14.8.1. Clock Run-in, Framing Code and Packet Address	Bytes 1 to 5 inclusive, as in Sections 9 and 10.
14.8.2. Designation Code	Byte 6, 4 bits data plus 4 bits Hamming protection. Designated by data bits set to 0011.
14.8.3. Data Groups	Bytes 7 to 36 used as 15 groups of 11 bits data plus 5 bits Hamming protection.
14.8.4. Display Colour Coding	<p>The sequence of 15 data groups provides 16 data words of 9 bits each. Each data word defines one of 8 possible levels respectively, of the 3 primary colours, red, green and blue. The first 8 data words in time sequence, replace group A of the colours defined in figure 7, the second 8 data words replace the colours of group B in figure 7.</p> <p><u>NOTE</u> There is no response to byte 37 of packet X/0/28 in this mode.</p>
14.9. Additional Row Display	This mode of operation has been defined to accommodate the need to transmit and display pages having a non-standard format.
14.9.1. Invocation	Control bit C7 in the page header packet X/0/0 (suppress header) set to 1.
14.9.2. Response of Decoder	Displays packets X/T/1 to X/T/24 in the normal page area. For enhanced modes (see Section 14.6.4.), the address code carrying the decimal value 40 defines display row 24.
15. Response of Decoder at Level 3	Decoder responds to packets as level 2 plus additional codes in the hexadecimal range, permit a set, or a pair of co-defined sets of characters to be down loaded into the decoder. A range of colour controls can be down loaded with the characters.
15.1. Range of Colours	See Section 16.
15.2. Range of Colour Controls	See Section 16.
15.3. Full Page Application	These pages can not be acquired by level 1 and level 2 decoders.

15.3.1. Access Page Per Magazine	Page A0.
15.3.2. Page Sub-Codes	Any except 3F7F.
15.3.3. Format of Packets Carrying Page A0	As level 2.
15.3.4. Down Loading Procedure	Uses data contained in Page A0, page sub-code 3F7F, see Section 16.
15.3.5. Display Procedure	User selects magazine X, page A0, and any page sub-code except 3F7F.
15.3.5.1. Decoder Action	<p>a) If a packet X/0/0 of page A0, page sub-code 3F7F immediately follows packet X/0/0 of page A0 including the selected page sub-code, load the DRCS as in Section 16.</p> <p>b) If a) above does not apply, then await the next packet X/0/0 of page A0, page sub-code 3F7F. If the magazine associated function bit C4 in this packet is set to 1, load the DRCS as in Section 16.</p> <p>c) If the page associated function has been invoked the sequence of packets as e) below follows immediately and they are acquired.</p> <p>d) If magazine associated function has been invoked the sequence of packets as e) below follows the transmission of packet X/0/0 of page A0 with the selected page sub-code and they are acquired.</p> <p>e) The first packet X/T/26 is now transmitted. In the row address groups of these packets, bit 4 set to 1 indicates magazine associated function and set to 0 indicates page associated function. This bit has no meaning when the DRCS mode is not invoked. The mode description bits of a character space address group set to 00100 invokes the first of two or a single DRCS and set to 00101 invokes the second of two co-defined DRCS. Other Mode Description bits have the same meaning as a level 2.</p> <p>f) The data in packets X/T/1 to X/T/23 is then displayed using the DRCS for the display rows defined by packets X/T/26 as in e) above.</p> <p>g) Further packets X/T/26 may be transmitted to provide non-spacing and off display area attributes. The character-space function of packet X/T/26 is as level 2 and can overwrite the DRCS with primary or supplementary set characters. In addition to the functions as in level 2, the basic character set is invoked by transmission of the NUL accent character (4/0).</p>
15.4. Character Set Extension Using DRCS.	Uses packet X/T/26 to overwrite any character position of the basic page as in level 2, but with characters from a DRCS, also a range of colour controls.
15.4.1. Down Loading Procedure	Uses data contained in page A0, page sub-code 3F7F, see Section 16.

15.4.2. Display Procedure

15.4.2.1. Decoder Action - DRCS Acquisition

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User selects magazine X, and a page that includes DRCS characters.

a) Following packet X/0/0 of the selected page, there follows the packets X/T/26. In the row address groups of these packets, mode bit 4 set to 1 indicates magazine associated function and set to 0 indicates page associated function. This bit has no meaning when the DRCS mode is not invoked. The character-space Mode Description bits are set to 01101 for a single DRCS or the first of two, or are set to 01110 for the second of two co-defined DRCS.

b) If a packet X/0/0 of page A0, page sub-code 3F7F immediately follows the final packet X/T/26 of a given page and C4 is set to 0 indicating page associated function, then load the DRCS as in Section 16.

c) If b) above does not apply and Mode bit 4 is set to 1 as in a) above, await the next packet X/0/0 of page A0, page sub-code 3F7F. If C4 in this packet is set to 1, indicating magazine associated function, load the DRCS as in Section 16.

15.4.2.2. Decoder Action - Display

A second transmission of packet X/0/0 of the selected page now precedes the transmission of packets X/T/1 to X/T/23 of that page. To overwrite using packet X/T/26 at a character-space addressed as in Section 14.6.4. The Mode Description bits are set to 01101 for a single or first of a pair of DRCS; they are set to 01110 for the second of a pair of co-defined DRCS. The 7 data bits define a character for display from the DRCS.

16. Dynamically Redefinable Character Sets - Down Loading Procedure

Carried by a page A0, page sub-code 3F7F, using packets X/0/0 to X/0/25. The sequence of packets is repeated as necessary, see Section 16.3.3.

16.1. Clock Run-in and Framing Code

See Section 9.

16.2. Addressing

16.2.1. Packet Numbers X/0/0 to X/0/25

Bytes 4 and 5 Hamming protected.

2 binary digits for magazine number X.

1 binary digit set to 0.

5 binary digits for packet sequence numbers 0-25.

16.3. Packets X/0/0

16.3.1. Page Number

Bytes 6 and 7 Hamming protected, coded with page number A0.

16.3.2. Page Sub-Code

Bytes 8, 9, 10, 11 Hamming protected and coded 3F7F. The included control bit C4 is set to 0 to invoke page associated function. When C4 is set to 1 magazine associated function is invoked. The included control bits C5 and C6 are set to 0. See Section 10.2.2.

16.3.3. Page Sequence and Colour Sequence Codes

Byte 12, 4 bits data and 4 bits Hamming protection.

16.3.3.1. Colour Sequence Code

Byte 12, data bit 1. When set to 0, all Mode controls and colours for downloading are in the first packet X/0/0 of the sequence as in Section 16.3.4. When set to 1, the first 16 bytes of 32 are in the first packet X/0/0 as above and the second 16 bytes are in the second packet X/0/0 of the sequence as in Section 16.3.5.

16.3.3.2. Page Sequence Code	Byte 12, data bits 2 to 4. The bit combinations 000 to 111 are used as sequence codes for the series of pages A0, page sub-code 3F7F.
16.3.4. Mode and Colour Data First Packet X/0/0	Bytes 13 to 34: a) Mode Controls.....2 or 3 bytes b) Colours to be Down Loaded.....0/16 bytes c) Start Control.....1 byte d) Address in Columns 2-7 of Code Table of First Character to be Down Loaded.....2 bytes
16.3.5. Colour Data Second Packet X/0/0	Bytes 13 to 30: a) Colours to be Down Loaded, second half of 32 bytes when required..16 bytes b) Address in Columns 2-7 of Code Table of Next Character to be Down Loaded.....2 bytes
16.3.5. Third and Subsequent Packets X/0/0	Bytes 13 and 14: Carry Address in Columns 2-7 of Code Table of Next Character to be Down Loaded.....2 bytes
16.4. Packets X/0/1 to X/0/25 of Sequence of Pages A0, Page Sub-Code 3F7F	Bytes 6 to 37: a) Character Data....number of bytes depends upon mode b) Character Terminate Control.....1 byte c) Subsequent Characters in numerical order completing each column, each character followed by the Character Terminate Control as in b) above..as b) d) Termination of Down Loading Control.....1 byte
16.5. <u>Character Sets Down Loadable</u>	A set, or a pair of co-definable sets of 94 characters on a 12 or 6 dot per raster line matrix, depending upon the mode selected. The matrix has 10 or 5 raster lines vertically depending upon the mode selected.
16.6. Down Loading Codes	16 standard control codes, 64 dot pattern codes, 31 DRCS mode control and instruction codes. See figure 10.
16.7. Modes	<u>Basic</u> display attributes are as for non-DRCS operation. <u>Colour</u> colour controls and colours also down loaded.
16.7.1. Basic Mode High Definition	<u>Display</u> 12 dots per raster line, nominally 10 raster lines per matrix. <u>Mode Controls</u> 6/0, 6/3 <u>Character Data</u> 2 bytes per raster line. First byte specifies even numbered dots (0 to 10). Second byte specifies odd numbered dots (1 to 11). The code bits b1, b2, b3, b4, b5 and b7 correspond directly to the dot pattern. Each complete matrix is terminated by the code 7/4.

16.7.2. Basic Mode
Low Definition

Display 12 dots per raster line, defined in pairs [(0,1) to (10,11)], nominally 10 raster lines per matrix. Two low definition sets may be co-defined.

Mode Controls Single low definition set or first of a pair of co-defined sets 6/0, 6/2, 6/4 Second of a pair of co-defined sets 6/0, 6/2, 6/5.

Character Data 1 byte per raster line. Each bit specifies a pair of dots. Each complete matrix is terminated by the code 7/4.

This mode is the fallback for decoders having only 6 dot DRCS capability.

16.7.3. Colour Mode

1 value of horizontal definition, 12 dots per raster line defined in pairs.
2 values of vertical definition, 10 raster lines per matrix for high definition or 5 raster lines per matrix for low definition.
2 methods of colour control, red, green and blue primary colours with two levels of intensity (see Section 16.7.3.1.) or 16 down loaded specified colours (see Section 16.7.3.2.).

16.7.3.1. Colour Using Three
Primary Colours

Display 12 dots per raster line, defined in pairs as in Section 16.7.2. Activation of red, green and blue with normal or reduced intensity.

Mode Control high definition 6/1, 6/3, 6/6.
low definition 6/1, 6/2, 6/6.

Character Data Dot patterns for complete matrix transmitted respectively for red, green, blue and intensity, i.e. four patterns for each complete matrix.

The transmissions for red, green, blue and intensity are respectively preceded by one of the delimiter codes 7/0, 7/1, 7/2 or 7/3. Only those required are transmitted and the complete matrix is terminated by the control code 7/4.

16.7.3.2. Colour Using 16
Down Loaded Colours

Display 12 dots per raster line, defined in pairs as in Section 16.7.2. any one of 16 colours may be associated with any dot pair. For colour down loading procedure see Sections 16.7.3.3. and 16.7.3.4.

Mode Controls high definition 6/1, 6/3 and 6/7 or 6/8, see Section 16.7.3.3. and 16.7.3.4.

low definition 6/1, 6/2 and 6/7 or 6/8, see Section 16.7.3.3. and 16.7.3.4.

Character Data Dot patterns for the complete matrix transmitted 4 times. The resultant 4 bits associated with each dot pair will thus have values in the range 0000 to 1111 in order to define one of the 16 colours. The transmissions define the 4 bits in order of decreasing significance and are preceded respectively by the delimiter codes 7/0, 7/1, 7/2 and 7/3. The complete transmission of the matrix is terminated by the control 7/4.

16.7.3.3. Colour Down Loading
16 Colours from a Set
of 64

Display Each colour is defined by 1 of 4 levels of red, green and blue primary colours.
Mode Controls as Section 16.7.3.2. using the codes 6/1, 6/3 and 6/7.
Colour Data 16 groups of 6 bits define 1 of 4 levels for respectively red, green and blue primary colours. Bits b1, b2, b3, b4, b5 and b7 of the codes in figure 10 are used. The sequence of 16 groups of 6 bits correspond to the colours invoked in Section 16.7.3.2.

16.7.3.4. Colour Down Loading
16 Colours from a Set
of 4096

Display Each colour is defined by 1 of 16 levels of red, green and blue primary colours.
Mode Controls as Section 16.7.3.2. using the codes 6/1, 6/3 and 6/8.
Colour Data 16 groups of 12 bits define 1 of 16 levels for respectively red, green and blue primary colours. Bits b1, b2, b3, b4, b5 and b7 of the codes in figure 10 are used twice for each group. The sequence of 16 groups of 12 bits correspond to the colours invoked in Section 16.7.3.2.

17. Response of Decoder at Level 4
Alphageometric Coding

Page addresses in the range A1 to FF and associated page sub-codes are reserved for this function. To be implemented when the coding details are specified. (1)

18. Response of Decoder at Level 5
Alphaphotographic Coding

Page addresses in the range A1 to FF and associated page sub-codes are reserved for this function. To be implemented when the coding details are specified. (1)

19. Telesoftware
Transmission of Computer
Programs and Similar Data Not
For Display.
Applicable to a Range of Levels
to be Associated with Those
Defined for Text and Similar
Display.

Page addresses in the range A1 to FF and associated page sub-codes are reserved for this function. To be implemented when details are specified. (1)

NOTE 1 These digits are in the hexadecimal range.

[illegible]

Packets	Clock Run-in	Clock Run-in	Framing Code	Magazine Number, Tabulation & Packet Address	32 Character Bytes Odd Parity
X/T/1 -					
X/T/23					

1010101010101010	11100100	P M P M P M P M P M P M P M 2 ⁰ 2 ¹ 2 ⁰ 2 ¹ 2 ² 2 ³ 2 ⁴ Magazine Number Tabulation and Row Address	..... P = Protection Bits M = Data Bits
Clock Run-in	Framing Code		
Synchronisation		Hamming Code	

Page Number	Page Sub-Code	Page Sub-Code & C4	Page Sub-Code &	Page Sub-Code & C5, C6	Control Bits C7-10	Control Bits C11-14

[illegible]

Figure 1

FORMAT OF PACKETS X/0/26 X/0/27 X/0/28 4/1/30

Packets X/0/26 - X/0/28	Clock Run-in	Clock Run-in	Framing Code	Magazine Tabulation and Packet Address	Design- ation Code	First Three or Six Byte Data Group	
-------------------------------	-----------------	-----------------	-----------------	--	--------------------------	---------------------------------------	--

Packet X/0/26	PKMPMPMPM Designation Code	PPA P A A P 1 2 1 3 2 3 4 5 P5 is add parity bit 1st byte	A A m m m m m P 5 6 1 2 3 4 5 4	D D D D D D D P Data odd parity	Ten Three Byte Groups in Each Packet	A = Address m = Mode P = Hamming	
------------------	----------------------------------	---	------------------------------------	---------------------------------------	---	--	--

Packet X/0/28	Oppppppp	sssspppp	PSPSPSPs	Ten Three Byte Data Groups in Each Packet	0 = Bit always set to 0 p = Primary Set Character P = Protection Bits s = Supplementary Set Character		
------------------	----------	----------	----------	--	--	--	--

Packet X/0/27	Six bytes containing Relative Magazine Number, Page Number and Page Sub-Code. For bit sequence see NOTE	Five Groups of Six Bytes Each in Each Packet	When Tabulation bit is set to 1 and designation code to 0000 bytes 7 & 8 are a basic page check word				17
------------------	---	---	---	--	--	--	----

Packet 4/1/30	Framing Code	Magazine Tabulation and Packet Address	Design- ation Code	Programme or Network Label	One 6 byte group Coded as packet X/0/27	Equipment Control Group Bytes 15 to 37	
------------------	-----------------	--	--------------------------	-------------------------------	---	---	--

NOTE Page Number and Page Sub-Code have the same format as bytes 6 to 11 of the Page Header (see figure 1), packet X/0/0. The bits C4, C5 and C6 in this sequence are used to change the magazine number from that in bytes 4 and 5 of the packet X/0/27. Setting any of these bits to 1 complements the corresponding magazine number bit. In all cases the LEAST SIGNIFICANT bit is transmitted first.

	2	3	4	5	6	7
0	SP	0	(1)	P	(1)	p
1	!	1	A	Q	a	q
2	"	2	B	R	b	r
3	#	3	C	S	c	s
4	\$	4	D	T	d	t
5	%	5	E	U	e	u
6	&	6	F	V	f	v
7	'	7	G	W	g	w
8	(	8	H	X	h	x
9	)	9	I	Y	i	y
10	*	:	J	Z	j	z
11	+	;	K	(1)	k	(1)
12	,	<	L	(1)	l	(1)
13	-	=	M	(1)	m	(1)
14	.	>	N	(1)	n	(1)
15	/	?	O	_	o	DEL

Figure 3

PRIMARY CHARACTER SET, COMMON CHARACTERS

(1) National Option variation, see Table on following page.

For 7 bit coding, bits 1-4 define row in ascending order and bits 5-7 define columns in ascending order.

TABLE POSITION	ENGLISH U.S. USE
4/0	e
5/11	[
5/12	\
5/13]
5/14	^
6/0	,
7/11	{
7/12	|
7/13	}
7/14	~

Figure 3 continued

PRIMARY CHARACTER SET, NATIONAL OPTION
FOR U.S. USE.

	2	3	6	7
0	oo oo oo	oo oo +o	oo oo o+	oo oo ++
1	+o oo oo	+o oo +o	+o oo o+	+o oo ++
2	o+ oo oo	o+ oo +o	o+ oo o+	o+ oo ++
3	++ oo oo	++ oo +o	++ oo o+	++ oo ++
4	oo +o oo	oo +o +o	oo +o o+	oo +o ++
5	+o +o oo	+o +o +o	+o +o o+	+o +o ++
6	o+ +o oo	o+ +o +o	o+ +o o+	o+ +o ++
7	++ +o oo	++ +o +o	++ +o o+	++ +o ++
8	oo +o oo	oo +o +o	oo +o o+	oo +o ++
9	+o +o oo	+o +o +o	+o +o o+	+o +o ++
10	o+ +o oo	o+ +o +o	o+ +o o+	o+ +o ++
11	++ +o oo	++ +o +o	++ +o o+	++ +o ++
12	oo ++ oo	oo ++ +o	oo ++ o+	oo ++ ++
13	+o ++ oo	+o ++ +o	+o ++ o+	+o ++ ++
14	o+ ++ oo	o+ ++ +o	o+ ++ o+	o+ ++ ++
15	++ ++ oo	++ ++ +o	++ ++ o+	++ ++ ++

Figure 4

MOSAIC GRAPHIC CHARACTER SET

o= Background Colour

+ = Foreground Colour

In the Mosaic Graphics Mode the Alphanumeric Characters from the Code Table of Figure 3 are included in Columns 4 & 5. Bit allocation is as figure 3.

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	0	1
0	(4)	(4)
1	Alpha Red	Mosaic Red
2	Alpha Green	Mosaic Green
3	Alpha Yellow	Mosaic Yellow
4	Alpha Blue	Mosaic Blue
5	Alpha Magenta	Mosaic Magenta
6	Alpha Cyan	Mosaic Cyan
7	Alpha White ⁽¹⁾	Mosaic White
8	Flash	Conceal ⁽²⁾
9	Steady ⁽¹⁾ (2)	Contig ⁽¹⁾ Mosaic ⁽²⁾
10	End ⁽¹⁾ Box ⁽²⁾	Separ Mosaic
11	Start ⁽³⁾ Box	(5)
12	Norm ⁽¹⁾ Hght ⁽²⁾	Blk ⁽¹⁾ Bkgd ⁽²⁾
13	Dble Hght	New Bkgd ⁽²⁾
14	(4)	Hold Mosaic ⁽²⁾
15	(4)	Release ⁽¹⁾ Mosaic

TABLE POSITION	
0/	
0/	Reduced Intensity
1/0	Mosaic Black
1/9	Underline Stop & Contig Mo
1/10	Underline Start & Sep Mos

- (1) Presumed at the start of each row.
- (2) Action 'Set At', others are 'Set After'.
- (3) Two consecutive codes are transmitted, action takes place between them.
- (4) No action at level 1.
- (5) No action at level 1 or 2.

Figure 5
CONTROL CHARACTER SET FOR
SPACING ATTRIBUTES

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	2	3	4	5	6	7
0		°		—	⌒	μ
1	i	±	√	1	Æ	æ
2	¢	2	✓	®	⊕	⊔
3	£	3	^	©	a	
4	\$	X	~	TM	π	ħ
5	¥	u	-	♫		ℓ
6	≠	π	∪	⌈E	∩	ij
7	§	.	.		ℓ	ℓ
8	¤	÷	..		ℓ	ℓ
9	'	'			ℓ	ℓ
10	“	”	°		ℓ	ℓ
11	◀	▶	♂		°	β
12	←	¼		1/8	ℓ	ℓ
13	↑	½	”	3/8	ℓ	ℓ
14	→	¾	ℓ	5/8	η	η
15	↓	ℓ	√	7/8	η	

Figure 6

SUPPLEMENTARY CHARACTER SET

Column 4 contains accents to be associated with characters from the Primary Character Set of figure 3.

Bit allocations are as figure 3

- (1) This character represents the European Currency Unit and is proposed for inclusion at position 5/6.

The European Broadcasting Union has proposed that °/oo (per mil) be included. No position in the code table has been allocated.

MODE BITS	FOREGROUND COLOUR GROUP	BACKGROUND COLOUR GROUP
01000	A	A
01001	A	B
01010	B	B
01011	B	A

DATA BITS			COLOUR REFERENCE NUMBER
b7	b6	b5	
b3	b2	b1	
0	0	0	1 A or B
0	0	1	2 A or B
0	1	0	3 A or B
0	1	1	4 A or B
1	0	0	5 A or B
1	0	1	6 A or B
1	1	0	7 A or B
1	1	1	8 A or B
			16 colours in all

The chromaticities of the colours are to be defined.

Bits b7, b6, b5 define the background colour

Bits b3, b2, b1 define the foreground colour

Bit b4 invokes flashing

Figure 7

INVOCATION OF PASTEL COLOURS IN FOREGROUND AND BACKGROUND

b5	b3	b2	b1	COLOUR REFERENCE NUMBER
0 = GROUP A	0	0	0	1 A or B
1 = GROUP B	0	0	1	2 A or B
	0	1	0	3 A or B
	0	1	1	4 A or B
	1	0	0	5 A or B
	1	0	1	6 A or B
	1	1	0	7 A or B
	1	1	1	8 A or B

The chromaticities of the colours are to be defined, but shall be the same as those of figure 7.
Bit b4 invokes reduced intensity.

Figure 8

INVOCATION OF PASTEL COLOURS FOR FULL SCREEN AND FULL ROW ATTRIBUTES

	6	7
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Figure 9 SMOOTHED MOSAIC GRAPHICS SET

Columns 2, 3, 4, & 5 are unallocated and the position 7/15 corresponds to the character DEL. The character in position 6/15 invokes the illumination of alternate dots of a mosaic rectangle. The horizontal component of the characters in positions 4/14 and 5/14 are invoked by the Separated Mosaic/Underline Alphanumeric Mode.

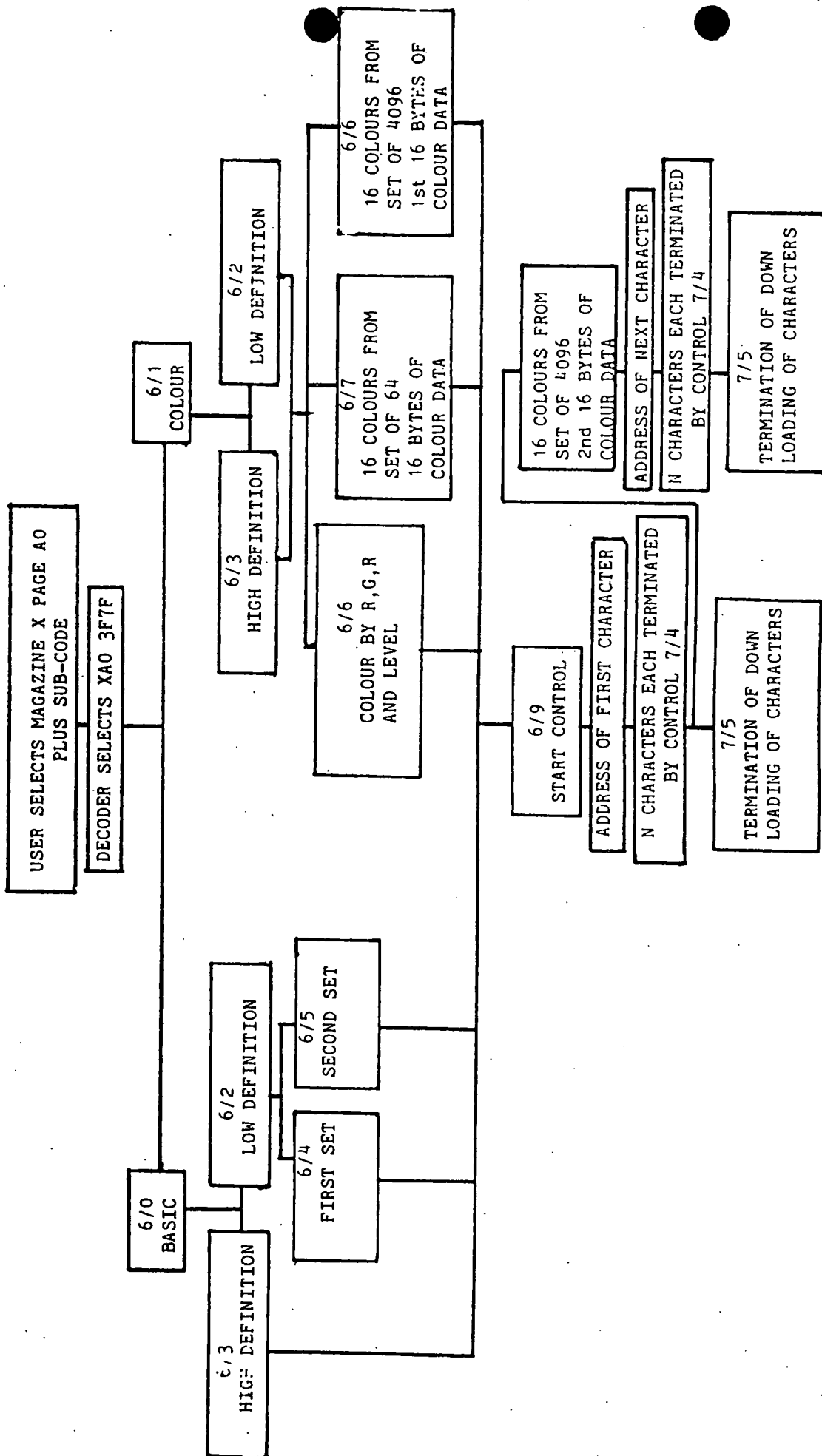


Figure 10

DOWN LOADING PROCEDURE FOR DRCS

	0 & 1	2-5	6	7
0	(1)	(2)	BASIC MODE	COLOUR DELIMITER 1
1	(1)	(2)	COLOUR MODE	COLOUR DELIMITER 2
2	(1)	(2)	LOW DEFINITION	COLOUR DELIMITER 3
3	(1)	(2)	HIGH DEFINITION	COLOUR DELIMITER 4
4	(1)	(2)	FIRST SET	TERMINATE CHARACTER
5	(1)	(2)	SECOND SET	TERMINATE DOWN LOADING
6	(1)	(2)	COLOUR BY R,G,B & Lev.	(3)
7	(1)	(2)	16 COLOURS FROM 64	(3)
8	(1)	(2)	16 COLOURS FROM 4096	(4)
9	(1)	(2)	START CONTROL	(4)
10	(1)	(2)	(3)	(4)
11	(1)	(2)	(3)	(4)
12	(1)	(2)	(3)	(4)
13	(1)	(2)	(3)	(4)
14	(1)	(2)	(3)	(4)
15	(1)	(2)	(3)	(4)

- (1) These columns reserved for standard control characters
- (2) These columns contain character and colour codes for down loading
- (3) These codes are reserved for future standardisation
- (4) These codes are reserved for use in the Videotex service

For 7 bit coding, bits 1-4 define rows in ascending order
and bits 5-7 define columns in ascending order

Figure 11
CONTROL CODES FOR DRCS DOWN LOADING PROCEDURE

Broadcast Service Data Packet Byte	Function	Bit Allocation
15 Local Time Zone	Undefined. Polarity, set to 1 when behind UTC (eg USA). Magnitude of offset from UTC in units of $\frac{1}{2}$ hour. Undefined	Bit 1 Bit 2 Bits 3 - 7 Bit 8
16 Year Type and Day (1)	Set at 1 when this year or next year is leap year. Set at 1 when this year or last year is leap year. January 1st day of week. UTC day of week.	Bit 1 Bit 2 Bits 3 - 5 Bits 6 - 8
17 Week	Undefined. Week Number 1 to 53 according to ISO 2015.	Bits 1 and 2 Bits 3 - 8
18 Hours	Undefined. UTC Hours 10's. UTC Hours units.	Bits 1 and 2 Bits 3 and 4 Bits 5 - 8
19 Minutes	Undefined. UTC Minutes 10's. UTC Minutes units.	Bit 1 Bits 2 - 4 Bits 5 - 8
20 Seconds	Set to 1 during minute containing a leap second. UTC Seconds 10's. UTC Seconds units.	Bit 1 Bits 2 - 4 Bits 5 - 8

Figure 12 Time and Date Coding for Broadcast Data Packet

NOTE 1

Days of the week are numbered from Monday = 1 to Sunday = 7

A given packet time signal indicates the time at the occurrence of the next such packet.

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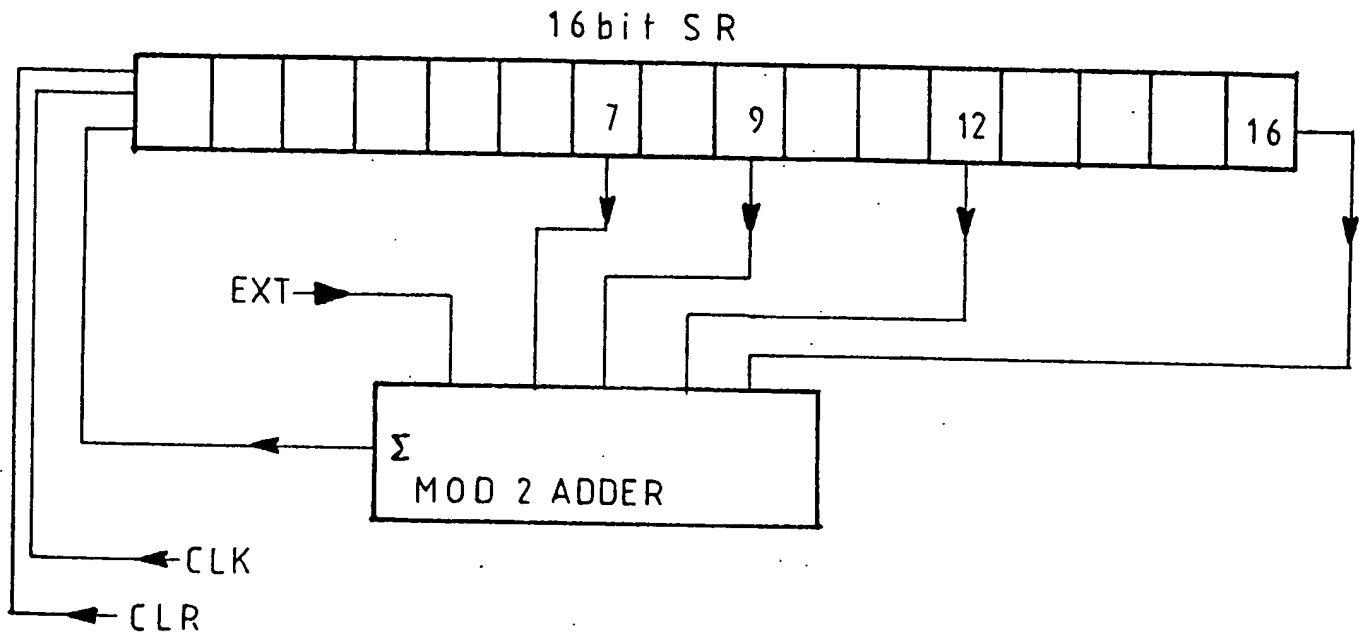


Figure 13

CHECK WORD GENERATION

In the example shown a 16 bit shift register has as input the modulo-2 sum of an external input and the contents of the 7th, 9th, 12th and 16th stages of the register. Initially the register is cleared to 'all zeros'. During a sequence of 8192 clock pulses the first 24 character bytes (192 bits) of the page header packet and the following character bytes of packets numbers with Yup to 25, in conventional transmission order form the external input. Any absent packets are considered to contain the character SPACE (2/0) throughout. At the end of this process the contents of the register are the Basic Page Check Word and it is transmitted along the register beginning with the bit held in the 16th stage.

DESIGNATION CODE	FUNCTION	DATA BITS							
		1	2	3	5	6	7	4	
ROW GROUP 00000	FULL SCREEN COLOUR	No Response			Red	Green	Blue	Reduced Intensity	
ROW GROUP 00001	FULL SCREEN PASTEL COLOURS	16 Pastel Colours						Reduced Intensity	
ROW GROUP 00100	NO RESPONSE								
ROW GROUP 00101	NO RESPONSE								
ROW GROUP 01000	FULL ROW COLOUR	No Response			Red	Green	Blue	Reduced Intensity	
ROW GROUP 01001	FULL ROW PASTEL COLOURS	16 Pastel Colours						Reduced Intensity	
ROW GROUP 01100	NO RESPONSE								
ROW GROUP 01101	NO RESPONSE								
ROW GROUP 10000	NO RESPONSE								
ROW GROUP 10001	NO RESPONSE								
ROW GROUP 10100	NO RESPONSE								
ROW GROUP 10101	NO RESPONSE								
ROW GROUP 11000	NO RESPONSE								
ROW GROUP 11001	NO RESPONSE								
ROW GROUP 11100	NO RESPONSE								
ROW GROUP 11101	NO RESPONSE								
ROW GROUP 11111	PACKETS 26 TERMINATOR	This code is followed by a 2 byte check digit on the data in packets "26" and packets "28".							
ROW GROUP XXX1X	DRCS MAGAZINE ASSOCIATED	The value of bit 4 in the designation code only applies when in the DRCS Mode, except for group 11111 above.							

Figure 14 PACKETS "26" DESIGNATION CODES ALLOCATION
ROW ADDRESS GROUPS

DESIGNATION CODE	FUNCTION	DATA BITS 1 TO 7 INCLUSIVE
SPACE GROUP 00000	ALPHANUMERIC NORMAL	BITS 1, 2 & 3 respectively RED, GREEN & BLUE FOREGROUND BITS 5, 5 & 7 respectively RED, GREEN & BLUE BACKGROUND BIT 4 FLASHING
SPACE GROUP 00001	ALPHANUMERIC x 2 HEIGHT	
SPACE GROUP 00010	ALPHANUMERIC x 2 WIDTH	
SPACE GROUP 00011	ALPHANUMERIC x 2 SIZE	
SPACE GROUP 00100	1st DRCS LATCHING SHIFT	
SPACE GROUP 00101	2nd DRCS LATCHING SHIFT	BITS 1 to 7 inclusive with the 4 Designation Codes define 16 foreground and background colours
SPACE GROUP 00110	MOSAIC NORMAL	
SPACE GROUP 00111	MOSAIC SMOOTHED	
SPACE GROUP 01000 TO SPACE GROUP 01011	PASTEL COLOURS 4 CODES	BIT 1 SEPARATED MOSAIC/UNDERLINE ALPHANUMERICS, BIT 2 BOXING, BIT 3 CONCEAL, BIT 4 REDUCED INTENSITY FOREGROUND, BIT 5 REDUCED INTENSITY BACKGROUND, BIT 6 NO RESPONSE.
SPACE GROUP 01100	NON-SPACING ATTRIBUTES	
SPACE GROUP 01101	1st DRCS SINGLE SHIFT	BITS 1 TO 7 INCLUSIVE DEFINE THE DRCS CHARACTER
SPACE GROUP 01110	2nd DRCS SINGLE SHIFT	
SPACE GROUP 01111	SPECIAL CHARACTER FROM SUPPLEMENTARY SET	BITS 1 TO 7 INCLUSIVE DEFINE THE SUPPLEMENTARY SET CHARACTER
SPACE GROUP 10000 TO SPACE GROUP 11111	ACCENTS FROM SUPPLEMENTARY SET	BITS 1 TO 7 INCLUSIVE DEFINE THE ASSOCIATED PRIMARY SET CHARACTER

Figure 15 PACKETS "26" DESIGNATION CODES ALLOCATION
CHARACTER-SPACE ADDRESS GROUP

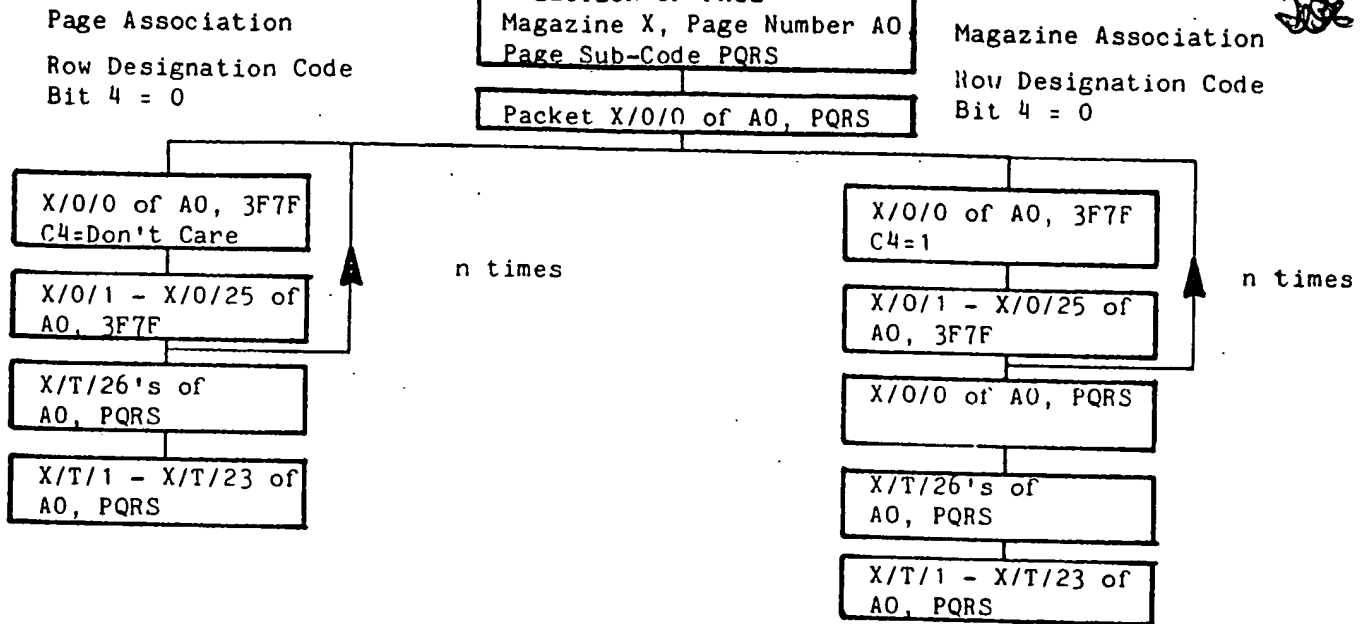


Figure 31 FULL PAGE DRCS DISPLAY PROCEDURE

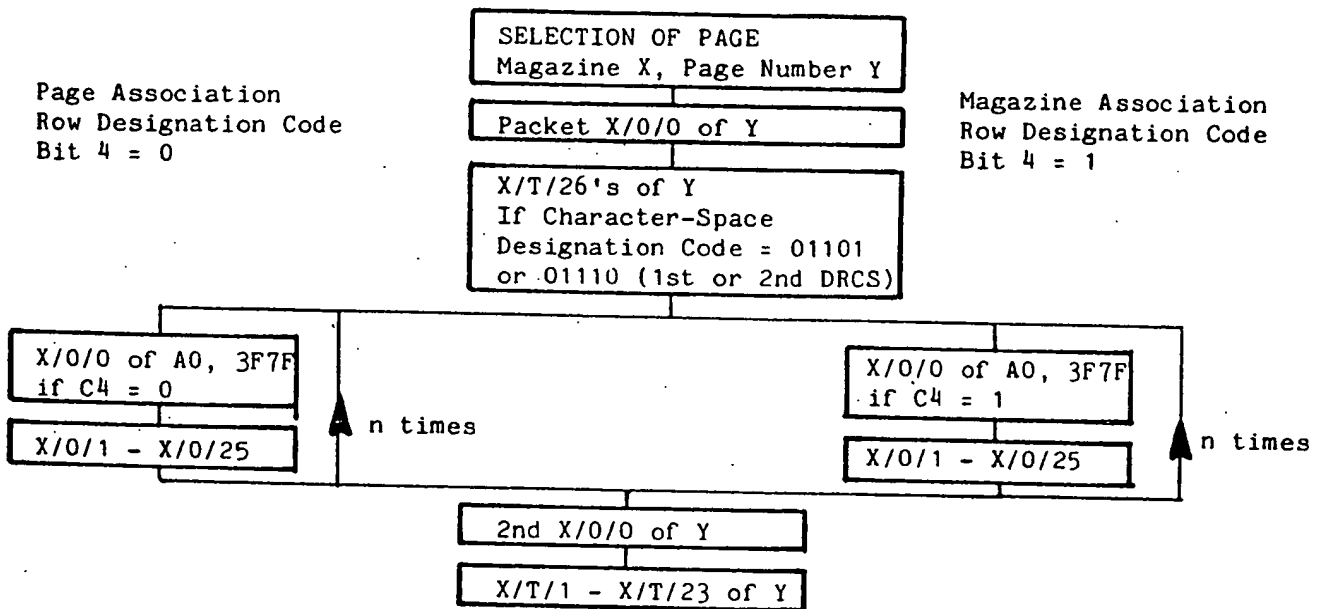
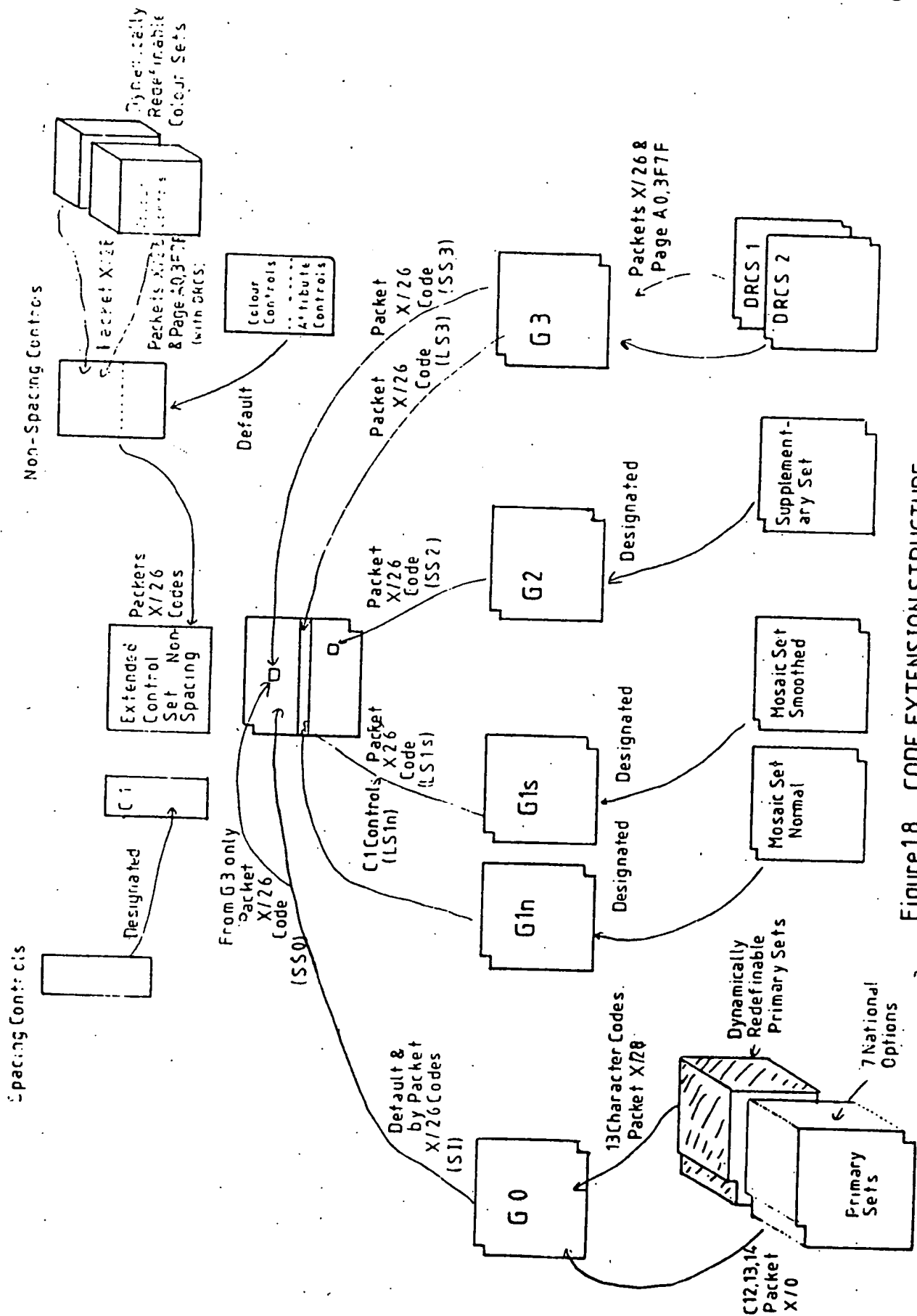


Figure 32 DRCS TO OVERWRITE BASIC PAGE



Application/Control Number: 08/487,526

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Page 139

Art Unit: 2614

APPENDIX B- ["discrete signals" of "standardized" Teletext (exemplified)]

Art Unit: 2614

The publication contained within "Appendix A" of this Office action, has been cited because it exemplifies "standardized" Teletext form/practice. The following is noted:

1) As was notoriously well known in the art, on the transmitter side of a Teletext system, a Teletext editor generated the respective Teletext images/frames which were to be transmitted. Each of these images/frames was then encoded into a "series of instructions" which "series of instructions", when transmitted and selectively received at the receiver side of the system, was used by the decoder/receiver to locally generate/re-generate the respective Teletext image/frame for display thereat.⁶⁴

2) As was notoriously well known in the art, in order to transmit the series of instructions, each series of instructions was first organized into a Teletext "page" format, wherein each formatted "page" was comprised of a plurality of "discrete Teletext packet signals". In the illustrated system of APPENDIX A, each Teletext "page" included the twenty-eight "discrete Teletext packet signals" having the structure shown on pages "A-17" and "A-18" of said Appendix A, wherein:

A) The first packet of each "page", e.g. packet "X/0/0" on page "A-17", was a header packet which carried various types of control signals associated with the respective "page";

B) The next twenty-four packets of each "page", e.g. packets "X/T/1" to "X/T/23" on page "A-17", were information packets each included various sync and address codes along with a 32 character byte information carrying portion for carrying a 32 byte "discrete portion" of the respective "series of instructions" of the respective Teletext image/frame; and

C) At least one of the remaining packets of each "page", e.g. packet 4/1/30, was an extension packet which, in the illustrated system, was used to convey:

⁶⁴ Note "APPENDIX E" attached hereto

Art Unit: 2614

1. Twenty-three bytes of an "equipment control group" for allowing the remote control/triggering/actuation of downstream network equipment(s);⁶⁵

[SEE: the paragraph which begins "Optional features..." on the page labeled "A-1" of the publication; and "Equipment Control" in packet 4/1/30 on page labeled "A-18" of the publication]

2. A program/network label portions for allowing downstream equipment/receivers to identify the program/network being transmitted on the given channel currently being received

[SEE: figure 12 on the page labeled "A-28" of the publication; and "Program or Network Label" in packet 4/1/30 on page labeled "A-18" of the publication]

3. ETC,...

3) As was notoriously well known in the art, so formatted Teletext "pages" were the communicated through the television network:

A) by embedding each "discrete Teletext packet signal" of each page within a respective vacant line period of the TV programming being distributed by the TV network;

B) by communicating the television programming containing the embedded "discrete Teletext packet signals" through the network to a plurality of receiver stations;

C) by separating the embedded "discrete Teletext packet signals" from the communicated programming at each of the receiver stations;

D) by determining which ones of the separated "discrete Teletext packet signals" correspond to information packets of a desired Teletext page;

⁶⁵ While this document does not list the kind of downstream equipment which was to be controlled by this signal "group", the kind of equipment that could be controlled was in fact notoriously well known in the art [note "APPENDIX D" attached hereto].

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E) by decoding those information packets of the desired Teletext page so as to obtain/recover the respective 32 byte information portions therefrom;

F) by organizing the obtained 32 byte portion back into the original sequence of instructions;

G) by executing the organized sequence of instructions so as to "locally generate" the desired Teletext image for display at the receiver station.

More specifically, with respect to the exemplified system:

A) Each transmitted Teletext image was represented by a series of instructions up to 768 character bytes long;

B) Because each vacant line period of a TV signal did not have the capacity/bandwidth to carry all 768 character bytes at one time, each series of instructions had to be divided up into a plurality of discrete portions/segments which could be carried within a respective plurality of vacant line periods. Specifically, each of the 768 bytes of each series was divided up into 24 portions/segments/rows which were 32 character bytes long (i.e. $24 \times 32 = 768$), and each of these so produced 24 portions/segments/rows was then inserted into a vacant line of a TV signal via a respective one of the 24 information bearing packets "X/T/1" to "X/T/23" shown on page "A-17" of Appendix A;

C) On the receiver side of the system: said information bearing packets "X/T/1" to "X/T/23" of a desired/selected Teletext page were then identified and decoded by a Teletext decoder so as to recover the respective discrete 32 byte portions/segments therefrom; these obtained 32 byte portions/segments were then organized/re-organized back into the original 768 byte "series of instructions" and stored in a display memory; and finally, this stored series of instructions was outputted from the display memory in order to instruct a character generator to "locally generate" the desired Teletext image that was to be locally displayed;

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4) As was notoriously well known in the art, "series of instructions" representing non-displayable types of data/information, e.g. such as computer software (e.g. "Telesoftware"), were also be formatted into standardized Teletext "pages" and communicated through a TV network in a like manner; e.g. "extended Teletext"⁶⁶. As exemplified by the system of Appendix A, it was explicitly recognized that the information packets "X/T/1" to "X/T/23" of given pages could be used to carry 32 byte "portions"/segments software (e.g. "Telesoftware") in place of the 32 byte "portions"/segments of data which represented displayable Teletext images/frames [SEE: the paragraph which begins "Page addresses have also been reserved for the transmission of Telesoftware..." on page "A-1" of the publication; and section "19." on page "A-16" of the publication; etc,...]. And unless the Telesoftware program comprised less than the 30-40 bytes that could be carried within one vacant TV line, e.g. it being rather doubtful that any computer program would/could be so short, the Telesoftware program was necessarily broken up into a plurality of discrete 30-40 bytes portions to be carried within a respective plurality of the discrete information packets too (e.g. in the same way as the character/graphic instructions were broken up and carried by said information packets as addressed above)⁶⁷. Again, for applicant to suggest that Telesoftware/Teletext was not transmitted as a plurality of discrete signal portion/packets that had to be "organized"/re-organized back into a complete instruction sets on the receiver side of the system, is simply founded in an unrealistically low level of skill in the art. Such arguments represents nothing less than a huge misunderstanding and/or misrepresentation of Teletext "prior art".

⁶⁶ Note the discussion in the first 12 lines under the heading "ORACLE and TV Transmission System" which begins in the last 6 lines of the second column on page 561 of the Hedger publication entitled "TELESOFTWARE-VALUE ADDED TELETEXT"].

⁶⁷ Indeed, Telesoftware programs were often so long that they had to be divided up into discrete 30-40 byte portions filling not just one page but a plurality of "linked" Teletext pages [note the first 6 lines on page 562 of the Hedger publication entitled "TELESOFTWARE-VALUE ADDED TELETEXT"]

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**APPENDIX C- [The “cuing” technology of applicant 1981 parent VS the
“SPAM” technology of applicant’s instant “1987” CIP
disclosure]**

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THE 1981 CUING SYSTEM TECHNOLOGY:

Applicant's 1981 parent application first discussed "prior art" cuing technology in which *remote* devices were controlled by "cuing instructions" which were embedded within "header" and "trailer" portion of Radio or TV transmissions [note lines 58-68 of column 1 in US Patent #4,694,490]. In the context of applicant's 1981 disclosure, the terms "header" and "trailer" referred to those portions of a TV/Radio program transmission which immediately preceded and followed the TV or Radio programming itself. Because the prior art placed these "cuing instructions" in such "header" and "trailer" portions, e.g. portions separate from the programming itself, it was easy for such "cuing instructions" to have become lost during program switching and editing processes (note lines 1 and 2 of column 2 in US Patent #4,694,490). Applicant's 1981 "invention(s)" overcame this problem by inserting the "cuing instructions" into the program transmission itself wherein the "cuing instructions" could not become easily separated from the programming [note lines 5-30 of column 4 in US Patent #4,694,490]. As has been noted by the examiner throughout the present prosecution, the record is simply overflowing with pre-1981 "prior art" which shows that it was known, conventional, and desirable to transmit such "cuing-type instructions" as digital codes within the programming whereby, as noted by applicant, they could not become easily separated from said programming:

- A) The translation of the 1968 Japanese article "System and Apparatus For Automatic Monitoring Control Of Broadcast Circuits" by Yamane et al.;
- B) The 1964 UK Patent Document #959,274 to Germany;
- C) The 1971 article "The Vertical Interval: A General-Purpose Transmission Path" by Anderson;
- D) The 1970 article "Vertical Interval Signal Applications" by Etkins;
- E) The 1973 article "A System of Data Transmission in the Field Blanking Period of the Television Signal" by Hutt;
- F) The 1973 article "Ad Hoc Committee on Television Broadcast Ancillary Signals" by O'Conner; and
- G) The Australian Patent Document #74.619 to Hetrich ,

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being among the more notable of this previously cited pre-1981 prior art.

As to the way in which applicant's 1981 inventions transported the "cuing instructions" within the programming, the 1981 disclosure set forth the following:

- 1) That the cuing instructions were digitally encoded so as to form respective "signal units";
- 2) That the bits from each of these "signal units" was carried within one or more "signal words" wherein the term "signal word" was explicitly defined only to be: a discrete appearance of a "signal" (with respect to time or location) within a TV or Radio program; and
- 3) That each of the "signal words" themselves was comprised of a string of bits which may or may not have included bits for identifying the beginning and end of the respective "signal words".

Significantly, the following "features" seem to have been common characteristics of applicant's 1981 inventions:

- 1) each of the transmitted "signal units" only appears to have comprised digitally encoded "information" which identified characteristics of the programming into which it had been placed/inserted, or an "instruction" or for identifying/"cuing" specific action or actions to be taken one or more "pre-programmed" receiver side devices; and
- 2) each of said receiver side devices was pre-programmed so as to known in advance where and when desired coded information would be broadcasted.

These "features" also appear to have been common characteristics to much of the pre-1981 prior art cited above; e.g. such as the cited 1973 publication by Hutt entitled "A System of Data Transmission in the Field Blanking Period of the Television Signal".

APPLICANT'S 1987 "SPAM" SYSTEM TECHNOLOGY:

While the "signal word" terminology and its 1981 definition have been *cosmetically* carried forward into disclosure of the 1987 CIP, it is believed that the introduction of the "SPAM" technology via the 1987 CIP disclosure represents a real and significant departure from the "signal word" transmission structure that was originally contemplated within the 1981 disclosure. Specifically, while the 1981 disclosure

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appears to have fallen short from locking itself into a specific packetized transport structure, the 1981 disclosure clearly contemplated providing a packetized structure at the "signal word" level in that the 1981 disclosure indicated that the "signal words" themselves would have included bits for identifying respective "signal word" beginnings and ends (i.e. thereby defining "signal word" sized packets). In contrast, the 1987 "SPAM" technology formally introduced a packetized transport structure which included its own bits for identifying the beginning and end of respective "SPAM" message packets. However, these "SPAM" message packets clearly did not correspond to the packetized "signal words" contemplated by the 1981 disclosure. Rather, these SPAM message packets provide a transport mechanism which allowed "signal word"-like intervals to be used as a "digital pipe/channel" by which a continuous stream of SPAM message packets could be passed. No such pipe/channel and no such "SPAM" transport mechanism/stream was ever described or contemplated via the disclosure of applicant's 1981 parent; e.g. at best, only a packetized "signal word" structure seems to have been contemplated by the 1981 disclosure. This fact further evidences why the currently pending claims which are necessarily directed to the "SPAM" technology of applicant's 1987 CIP disclosure are not entitled to the 1981 priority date of applicant's parent application which had no such "SPAM" disclosures.

APPLICANT'S 1981 AND 1987 TECHNOLOGIES (COMPARED):

The pre-1974 cuing technology of the "prior art" listed above lacked a "universal"/standardized packetized transport structure which could be used to carry its many type of digitally coded discrete signals (note APPENDIX D of this Office action). The pre-1981 "extended Teletext" technology provided this previously missing universal/standardized packetized transport packet structure (note APPENDIX B of this Office action).

In a similar way, the cuing technology of applicant's 1981 parent disclosure also lacked a "universal" packetized transport structure which could be used to carry its many type of digitally coded discrete signals. Applicant's 1987 "SPAM" technology provided such a previously missing universal packetized transport structure. And because the currently pending amended claims include recitations which are necessarily directed to this 1987 "SPAM" packetized transport (i.e. those recitation which necessarily derive their required section 112 support therefrom), the currently pending amended claims are clearly not entitled to the 1981 priority date of the parent application which did not disclose such a "SPAM" transport mechanism.

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It is important to note that the pre-1981 "universal"/standardized transport packet structure of "extended Teletext" systems not only predates the introduction of applicant's own 1987 universal "SPAM" transport packet structure, but it actually predates the cuing code technology of applicant's 1981 parent application too (i.e. 1981 cuing code technology which appears to be more closely related to the cuing technology set forth in pre-1974 "prior art" listed above). Being such, such the "discrete packet signal structure" and content that is "extended Teletext" constitutes "prior art" against any and all inventions that applicant has or can ever claim within the current chain of applications; e.g. no matter how one cuts the issue of priority under section 120!

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APPENDIX D- [Prior to 1981, it was notoriously well known in the art to have inserted/embedded digitally encoded "instruction", "control", "information", and "messaging" signals into the vacant lines intervals of distributed TV programming in order to have controlled the execution of a wide variety of functions performed by a wide variety of downstream machines and "equipment". The following lists, obtained from the pre-1981 "prior art" cited in APPENDIX C above, exemplify some of the functions which were known to have been controlled by such embedded cuing/data signals.]

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O'CONNOR (1973)

ATTACHMENT II

List of Ancillary Signal Functions

(In Addition to Test and Reference)

1. Network signalling for news breaks and special announcements.
2. Cueing to automatically start and stop equipment.
3. Continuous program log printout.
4. Unique identification of programs and/or commercials.
5. Program sound channel.
6. Emergency sound channel or second sound channel for non-English speaking minorities.
7. Subtitles for the deaf or for non-English speaking minorities.
8. Automatic operation of cable television non-duplication switchers.
9. Emergency action notification alerting.
10. Automatic operation of pre-set videotape recorders in schools.
11. Data transmission — closed circuit or for broadcast.
12. Facsimile transmission — closed circuit or for broadcast.
13. Precise time and frequency dissemination.

From SMPTE Reply Comments Doc 19314, Page 2, May 8, 1972

The television distribution industry is continually looking for improved methods to upgrade and control the program materials, the video and aural signals, and further to distribute these signals at a lower cost. The distribution industry can be expected to use the added signalling capacity of the channels for the following functions as ways to improve their normal program broadcast operation:

1. Network signalling for news breaks and special announcements.
2. Continuous program log printouts.
3. Unique identification of programs and/or commercials.
4. Program sound channels.
5. Automatic operation of cable television nonduplicating switchers.
6. Precise time and frequency dissemination.
7. Test and reference signals.
8. Network or channel identification for automatic receiver tuning.
9. Signals for control of automatic channel equalizers.
10. Program categories.
11. Quality rating of original signal.
12. Destination of transmission control.
13. Source synchronization.
14. Telemetry to and from remote transmitters.
15. Program coordination.
16. Network time signal.
17. Transmission of instructions and other information to subsidiary studios.
18. Selective user addressing.
19. Regional news and/or weather service distribution.
20. Listing of forthcoming programs, i.e., program guide.

Etkin (1970)

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2-7 185

Vertical Interval Applications

As the vertical data transmission systems will probably provide extra use of the broadcast spectrum without interfering with the existing services, it is logical that the use of some applications will require waivers or changes in the FCC Rules and Regulations.

The versatility of the present industry applications will be presented. Many applications include Broadcast, ETV and CATV uses.

1. Communications link to affiliated network stations. By employing an electronic generator at the point of network origin and at each affiliate, it is possible to establish a reliable continuous communications network. The affiliate should use a separate control room monitor upon which network messages would be seen. The network provided with a selective addressing unit could address an individual station, group of stations, or all stations, transmitting program log information, cueing information, routine messages or news flashes. News alarms could usually use the flashing feature of generator as a silent signal to alert control room personnel.

2. Transfer of daily program logs. Daily program logs made up at the controlling station could be transmitted to the affiliates by using the vertical interval system. The log information could be fed to a rotating magnetic memory device or a hard copy printer.

3. News wire distribution. News wire bandwidth requirements are determined so that several hundred circuits could be carried in the vertical interval of a single video signal.

It was recently shown that a AP News Wire could be carried over an RF system. The news wire was terminated at a city located on a news wire trunk line so that it could be turned over to private or common carrier TV microwave operators. Assuming that appropriate FCC waivers are obtained, interconnected TV stations and CATV systems subscribing to the service could be fed directly and radio stations could receive the signals from off-air pickups from TV stations. Readout would be displayed either by hardcopy from a printer or by means of an electronic character generator. It is most likely that CATV systems would also provide a continuous news feed to CATV subscribers.

TV stations and CATV systems employing character generators and magnetic storage equipments could possibly preview and edit the news copy, and then display the edited copy on a monitor from which the newscaster can obtain the latter-day "rip and read" copy and then deliver the news orally.

4. Communications with TV station mobile units. The TV station's transmitter could be used to transmit messages to mobile units. To achieve this each mobile unit would have to be equipped with a character generator for readout. The mobile units message transmission to the control room is performed similarly, by using the remote video link. Where the mobile microwave unit transmits to the station's transmitter site, the two-way data circuit can be maintained by using the common transmission facilities through a different horizontal line for each direction. The transmitter video input switcher operated by studio control is normally accomplished so as to provide for better coordination during remote pickups.

5. Transmission of messages by ETV and IIFS systems. Many statewide, regional and local educational distribution systems can be provided with advantage of the addressing flexibility of the vertical interval data transmission devices. They can selectively communicate with individual schools or groups of schools. The readout device can be character generator or hard copy.

6. Central computer facility. Various campuses having points of origin in an ETV system can establish

two-way communications with a central computer facility.

7. Identification of program source. Vertical interval encoded signals can be used to identify the origination point of network programming or the source of video tape production.

8. Unattended VTR's remote controlled. Remotely located video tape recorders can be operated by the application of V. I. control for recording programming during otherwise dark periods. CATV systems being fed from regional microwave systems could record feature films and other program material at night, or other available time periods, using the same microwave facilities that are used for daytime carriage of regular programs. The use of this method could solve two of the most vexing problems in cable TV program distribution, dubbing and bicycling.

9. Remote video switching. Video input switching of intercity microwave systems can be remotely controlled by means of V. I. signals. TV stations and ETV systems can be controlled from either the point of origination or from the destination point.

10. CATV non-duplication switchers remotely controlled. Local and distant TV broadcast stations can remote, manual, or automatic control the non-duplication switchers. This provides for schedule changes of the programming hours. Other vertical interval application possibilities are: Insertion of test signals; Microwave fault alarm transmission; Remote control of metering and logging of TV transmitters; Regional news and weather service.

Programme source identification

The first application of the data system at the ISL is for labelling programme sources within the ISL programme network. The data signal is inserted along with insertion test signals (ITS) on the adjacent lines 19, 20, 332, 333, and the data signal when read out and displayed on an indicator denotes the sources of ITS and also programme. The system is currently demonstrating a solution to live programme identification and providing an extended test of the data system under operational conditions. No severe problems have yet been encountered. Some further possible uses of insertion data are:

- Source identification.
- Programme category.
- Destination of transmission.
- Quality rating of original signal.
- Switching and routing instructions.
- Source synchronization, or genlock.
- Monitoring and service data.
- Telemetry to remote transmitters.
- Programme co-ordination.
- VTR frame numbering.
- Network time signal.
- Transmission of captions to special domestic receivers.
- Transmission of instructions and information to subsidiary studios, transmitters, displayed on monitors or print-outs.
- Communication with OS units.
- Message transmission for ETV distribution, selective user addressing.
- Verification of carriage of commercial material, using line 16 monitoring.
- Remote control of unattended VTRs.
- Regional news and/or weather service distribution.
- Domestic information service as with the proposed 'Oracle' service (see page 61).

Anderson (1971)

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208 187

Abstract—Equipment is now available to utilize the vertical interval of the television signal to transmit digital information. A vertical interval (VI) encoder selects any line, 13 through 20, onto which is clocked the data originating from a character generator, computer or other digital device. At the receiving point, data are decoded for display in "real time" using a character generator, printed out in hard copy, or used to initiate electromechanical operations through proper interfaces.

Numerous applications exist for VI transmission: transmitting information to network affiliates, newswire distribution, remote computer access, centralized clock system control, remote control of VTR's and video switchers, and test signal transmission.

INTRODUCTION

HISTORICALLY the vertical blanking interval has been utilized by television networks and common carriers to transmit video test signals. Equipment is now available that further permits the addition of digital information from character generators, computers, and other sources onto the vertical interval.

CONCLUSION

We feel this system has real potential as a means of disseminating information by a network to affiliated stations. By having such equipment at the point of origin and at each affiliate, it is easily possible to establish a reliable, continuous communications network at minimal expense. Typically, the affiliate would be equipped with a separate control room monitor upon which network messages would appear. The network, by means of selective addressing, would address an individual station, group of stations or all stations, transmitting program log information, cueing information, routine messages or news flashes.

FCC "Final Report" by Sponberg (1975)

Ancillary signals possibly could be used to facilitate the activities of a number of professions outside the television industry. Functions that could be performed are:

1. Starting and stopping of equipment automatically.
2. Automatic operation of preset video recorders in schools.
3. Providing precise time and frequency information.
4. Automatic vehicle location signals.
5. Stock market information.
6. "Newspaperlike" services (or facsimile).

The activities which may be of interest are:

- Educators who have the desire to record a television documentary being shown over the networks during the time period after school hours.
- Scientists and operating systems requiring extremely precise time and frequency information.
- Business operations needing immediate marketing or stock market information.

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APPENDIX E- [Each Teletext image is transmitted through a TV network as an encoded "series of instructions" which, when selected for reproduction, can instruct a Teletext decoder as to how to "locally generate" the desired image]

Teletext utilizes a number of the lines in the vertical blanking interval for the transmission of text and pictorial information in digital form for display on the television screen. The number of vertical blanking interval lines which may be used for teletext ranges from a minimum of one to a maximum of 12, with two lines proposed for use initially in the United States. The amount of digital teletext information which can be transmitted in a given amount of time increases in direct proportion to an increase in the number of lines used for teletext.

The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a series of instructions to be transmitted to the teletext decoder. The instructions for each page in the teletext "library" are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g., by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmissions, stores the coded information in memory, processes that information to the extent necessary for a display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture.

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:)
)
Amendment of Part 73, Subpart E) RM No.
of the Federal Communications)
Commission Rules Governing Tele-)
vision Broadcast Stations to)
Authorize the Transmission of)
Teletext)

PETITION FOR RULEMAKING

The United Kingdom Teletext Industry Group, Bernard J. Rogers, Chairman, 1/ pursuant to Section 1.401 of the Commission's Rules, files herewith, this request, that the Commission initiate a proceeding proposing the adoption of rules to allow television broadcast licensees to transmit teletext using the defined format British teletext system. 2/

We submit that teletext is ripe for rapid development in the United States and we urge the Commission to proceed as quickly as is reasonably possible to allow the use of this important technology in the United States. For this reason

1/ This group is comprised of representatives of the following bodies who are interested in the British teletext system and have endorsed the present submission: British Broadcasting Corporation; Independent Television Companies Association; Independent Broadcasting Authority; British Telecoms; Department of Industry; Logica, Ltd; Jasmin, Ltd; Mullard, Ltd; V.G. Electronics, Ltd; Texas Instruments (UK), Ltd; General Instrument Microelectronics (UK), Ltd; Aston, Ltd; GEC (UK) Ltd.

2/ The specific rules which we proposed for adoption are set forth at Attachment B to our Appendix.



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APPENDIX F- [Receiver produced Teletext images (i.e. displayed *Teletext* derived subtitles) were understood by those of ordinary skill in the art as having been “locally generated” images].

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MAY 1981

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H04N 5/44

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GJ

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None

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displaying a mixed picture signal

(57) In a picture display device for displaying a mixed picture signal which signal comprises a conventionally received television picture signal and a locally generated signal, such as a teletext sub-title, a field deflection amplifier (1) is provided to which is connected an output stage comprising transistors (2, 3). To the junction of the emitters of these transistors a field deflection coil (4) is connected whose other terminal is connected through a capacitor (5) and feedback resistor (6) to earth, the junction of capacitor (5) and resistor (6) being connected through a feedback network (14) to a negative feedback terminal (1b) of amplifier (1). The junction of deflection coil (4) and capacitor (5) is connected through the collector-

emitter path of a transistor (7), a resistor (8) and the collector-emitter path of a transistor (9) to earth, the transistors (7, 9) being of like conductivity type. The bases of transistors (7, 9) both receive drive signals from a teletext decoder circuit (10), that for transistor (9) being at picture frequency so that it conducts during alternate field periods whilst that for transistor (7) is at field frequency and causes that transistor to conduct in the presence of the local picture and box blanking signal from the decoder (10). When both transistors (7, 9) are conducting the field deflection current through field deflection coil (4) is modified such that the interlace in the picture is substantially eliminated in the presence of the locally generated signal. In this manner jitter in the display at the boundary between the portions of the picture is substantially reduced.

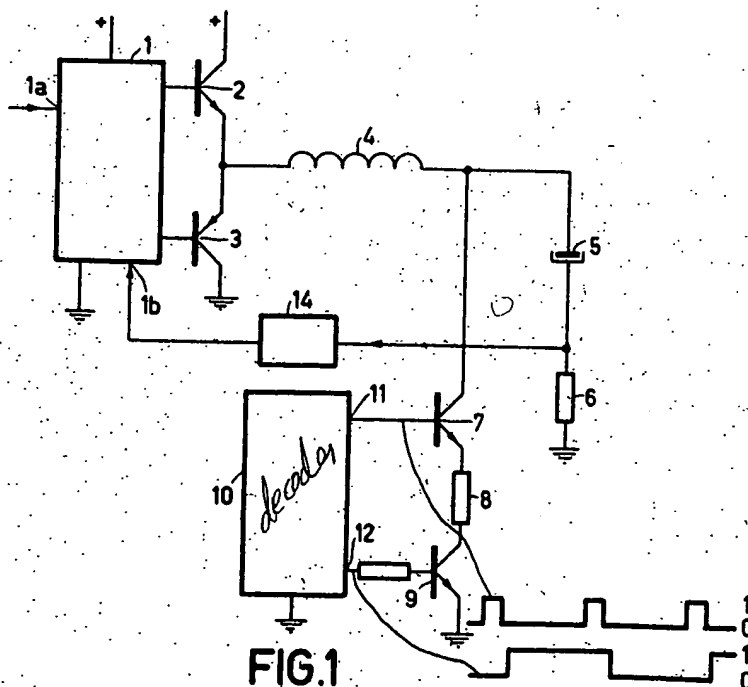


FIG.1

GB 2 062 401